

# **JTC Freight Investment Study**

## ***Fifth Stakeholder Group Meeting***

*presented to*

**Freight Financing Study Stakeholder Committee**

*presented by*

**Matthew Kitchen, PSRC**

**Christopher Wornum, Cambridge Systematics, Inc.**

**Michael Fischer, Cambridge Systematics, Inc.**

**Gill Hicks, Gill Hicks Associates, Inc.**

**October 6, 2008**

**Transportation leadership you can trust.**

# Agenda

- **Welcome, opening remarks and self-introductions**
- **Agenda and objectives for this meeting**
- **Alternative Freight Revenue Sources (Task 8 Report)**
- **SR 509 benefits analysis and project funding portfolio**
- **BREAK—10 minutes**
- **SR 167 benefits analysis and project funding portfolio**
- **FAST Corridor projects benefits analysis and project funding portfolio**
- **Discussions of proposed nexus-based funding approach**
- **Next steps & future stakeholder meetings**
- **Adjournment**

# Previous Stakeholder Meeting on January 23<sup>rd</sup>

## Diversion Analysis

- **Draft results of analysis provided to BST Associates, legislative staff and consultant team**
- **Leachman analysis, BST review, & consultant review provided to stakeholders**
- **Presentation by Rob Leachman of his analysis**
- **Presentation by Paul Sorenson of his review**
- **Discussion of results by stakeholders**

# Overview of the Study

## Review of Study Tasks

- 1. Evaluate Existing & Potential Funding Incentives
  - 2. Analyze Current Industry Taxes & Fees
  - 3. National & International Comparison of Freight Funding
  - 4. Assess Non-Freight Funding Sources
  - 5. Measure Economic Impact of Funding
  - 6. Assess Diversion of Marine Cargo
  - 7. Measure ROI of Freight Infrastructure
  - 8. Examine Other Potential Project Specific Fees
  - 9. Recommend a Project Recommendation Body
  - 10. Supplemental Work Tasks
  - 11. Stakeholder/Legislator Groups
- Completed
- Underway

# Alternative Freight Revenue Sources

## Task 8 Report

### Option 1

*Re-direct freight-related revenues to freight-only projects*

### Option 2

*Raise existing taxes or fees*

Freight specific

Non-freight specific

### Option 3

*Implement new taxes or fees*

Freight specific

Non-freight specific

# Re-direct Freight-related Revenues Freight-only Projects

**Option 1  
Redirect**

- **Special fuel tax, combined licensing fees**
  - >\$360 million annually
  - 18<sup>th</sup> Amendment limits use for non-highway purposes
- **Public Utility Taxes**
- **General fund revenues**
  - G.O. Bonds funded with Special Fuels tax
  - California I-Bond

# Increase in Non-Freight Related Sources Biennium 2007-2009 (Millions of \$2007)

**Option 1  
Redirect**

**Passenger Vehicle MVET**  
*(Reinstate a 1% of vehicle value)*

**\$707**

**Motor Vehicle Fuel Tax (MFT)**  
*(Indexed at 6% 37.5 cents per gallon)*

**\$86**

**Vehicle Weight Fee**  
*(\$3 increase on a base of \$10 to \$30)*

**\$30**

**Pass. Vehicle License Fee**  
*(Indexed at 6% on a base of \$30)*

**\$8**

**Rental Car Tax**  
*(0.5% increase on a base of 5.9%)*

**\$4**

\$0 \$100 \$200 \$300 \$400 \$500 \$600 \$700

# Raise/Index Existing Taxes or Fees From Freight-Only and Non-Freight Sources

**Option 2  
Increase**

**Freight specific**

**Special fuels tax**

**Combined licensing fees**

**Non-freight specific**

**Motor fuel tax**

**Rental car tax**

**Passenger vehicle registration fee**

**Vehicle Weight Fee (passenger)**

# Increase Existing Freight Related Sources Biennium 2007-2009 (Millions of \$2007)

**Option 2  
Increase**

**Combined License Fee**  
*(6% increase on a base of \$40 to \$3,402)*

**\$21**

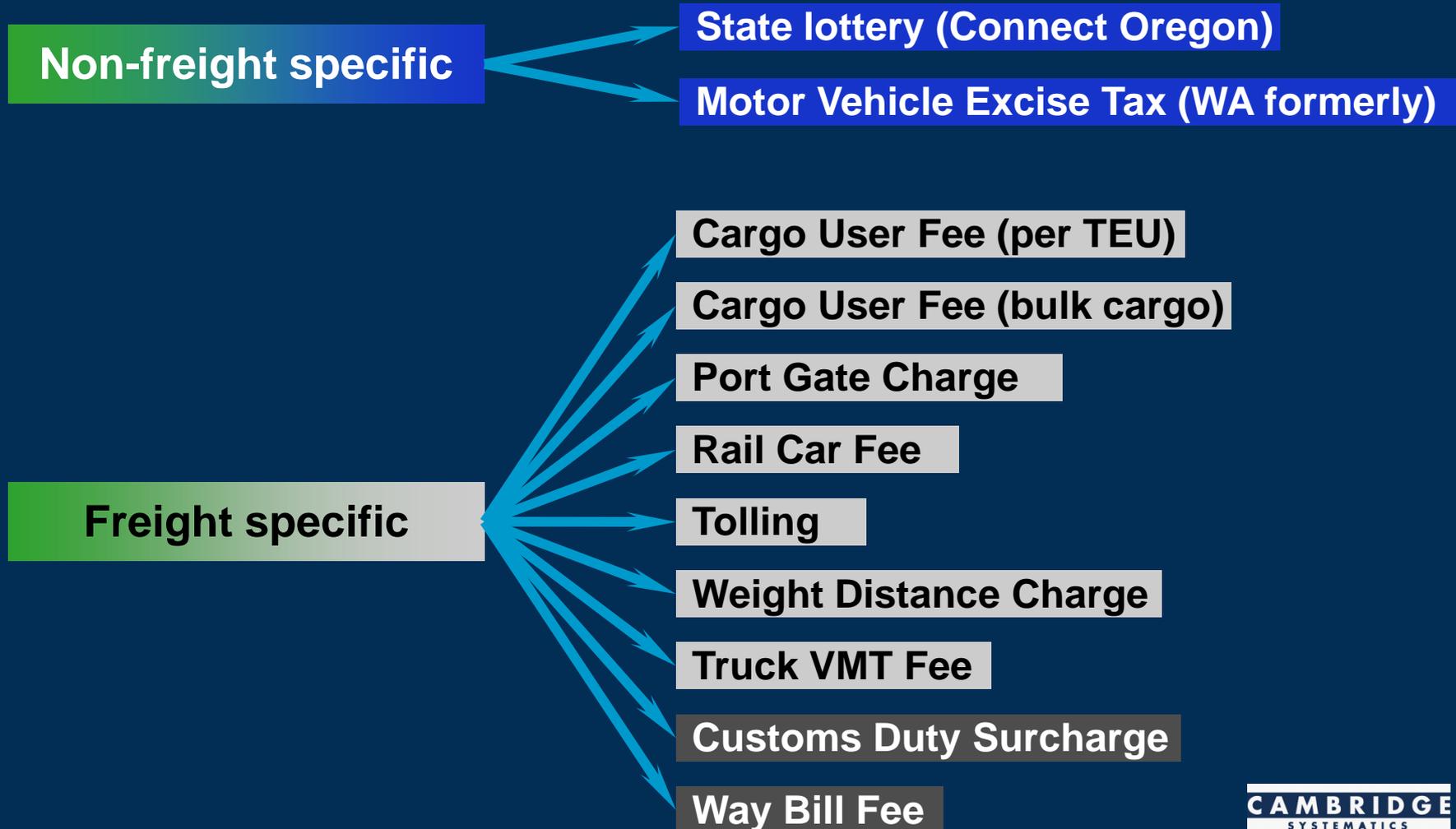
**Special Fuels Tax**  
*(Indexed at 6% 37.5 cents per gallon)*

**\$19**

\$0 \$100 \$200 \$300 \$400 \$500 \$600 \$700

# Implement New Taxes or Fees From Freight-Only and Non-Freight Sources

**Option 3**  
New Sources



# New Freight Related Revenue Sources Biennium 2007-2009 (Millions of \$2007)

**Option 3**  
New Sources

**MVET from Trucking**  
*(Reinstate a 1% of vehicle value)*

**\$230**

**Cargo User Fee on Imports**  
*(\$30/TEU)*

**\$86**

**Bulk Fee**  
*(\$0.20/Ton)*

**\$5**

**Heavy Truck VMT Fee**  
*(16 cents per mile)\**

**\$453**

\$0 \$100 \$200 \$300 \$400 \$500 \$600 \$700

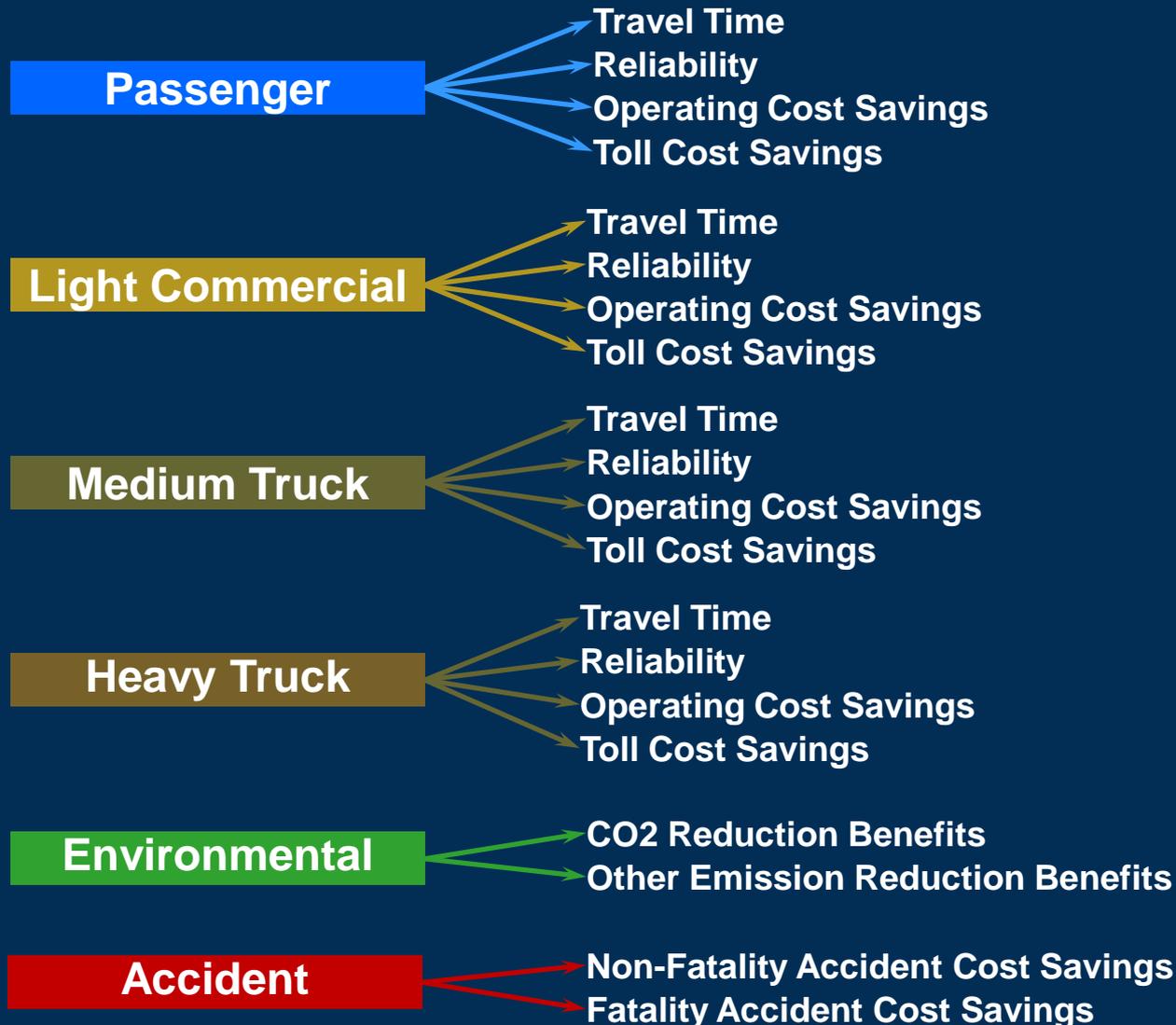
Note: \*Truck VMT rate same as Germany

# Project Benefit Analyses

- SR 509 benefits analysis and project funding portfolio
- BREAK—10 minutes
- SR 167 benefits analysis and project funding portfolio
- FAST Corridor projects benefits analysis and project funding portfolio

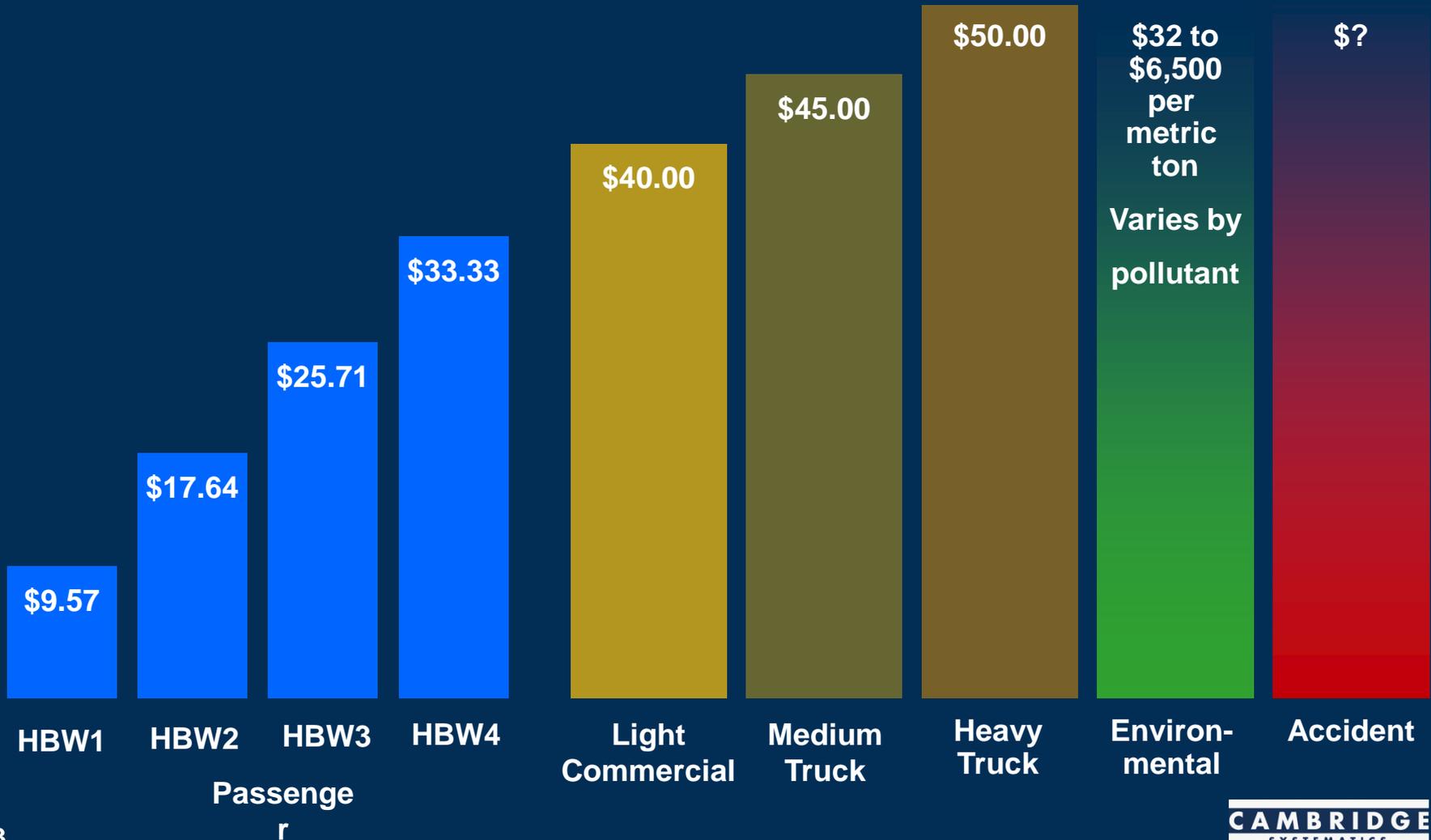
# Project Benefit Analyses

## Detailed Project Benefits (Millions of Current Dollars)

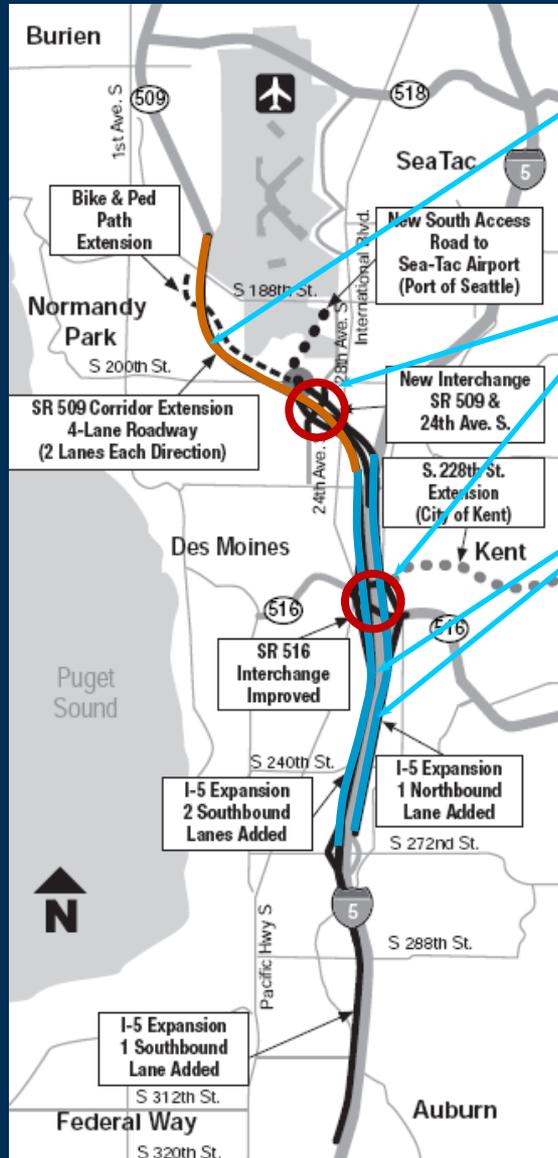


# Project Benefit Analyses

## Value of Time (Year 2000 Dollars)



# I-5/SR 509 Corridor Completion Project Description



- Completes SR 509 corridor with three-plus miles of new freeway
- Includes new SR 509 interchange access
- Includes new lanes on I-5 between S. 210th and S. 272nd Street vicinity
- Listed as priority freight project in:
  - Legislative Budget
  - FMSIB List
  - Regional Blueprint (RTID)
  - WA Transportation Plan

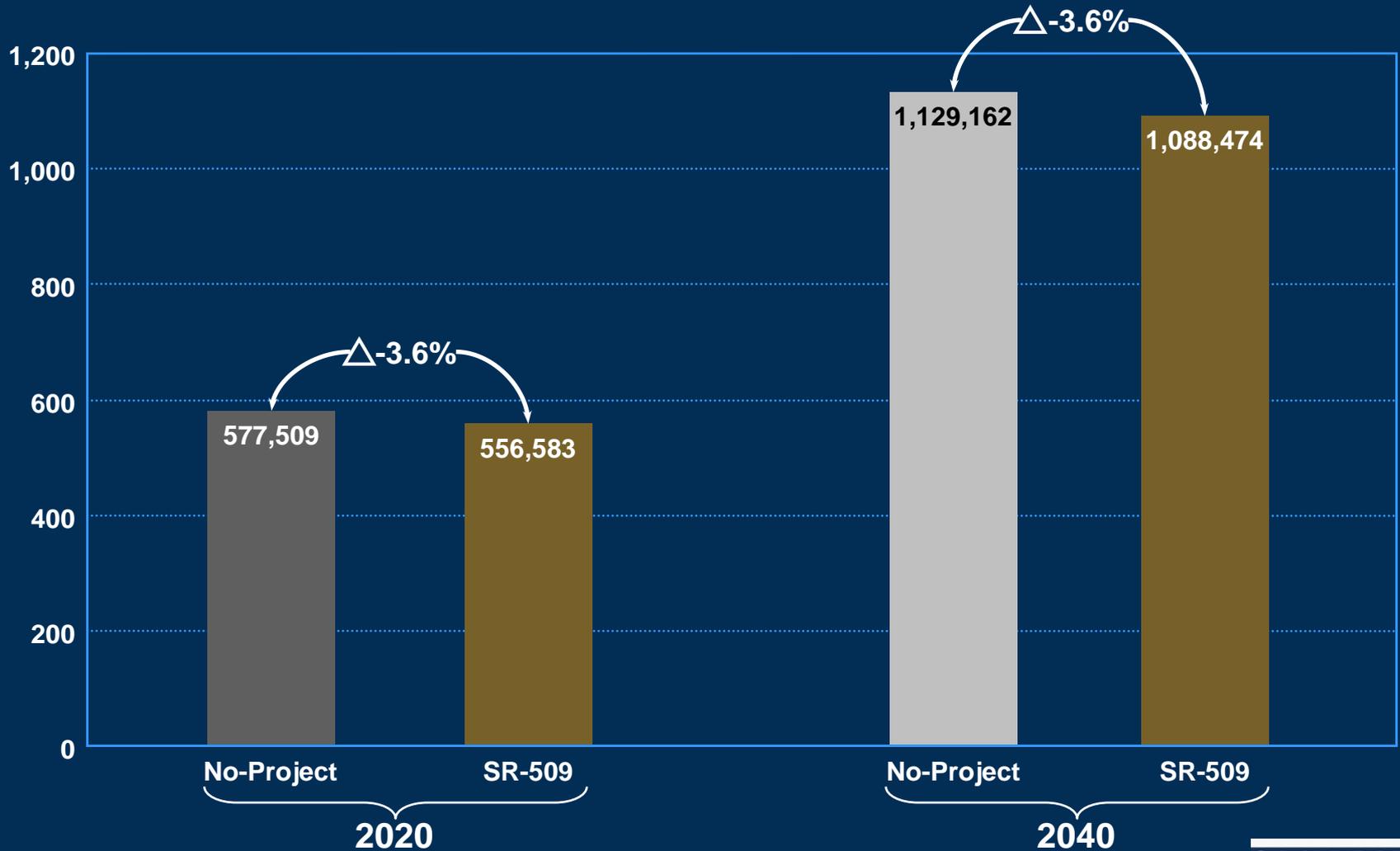
# I-5/SR 509 Corridor Completion

## Freight Benefits

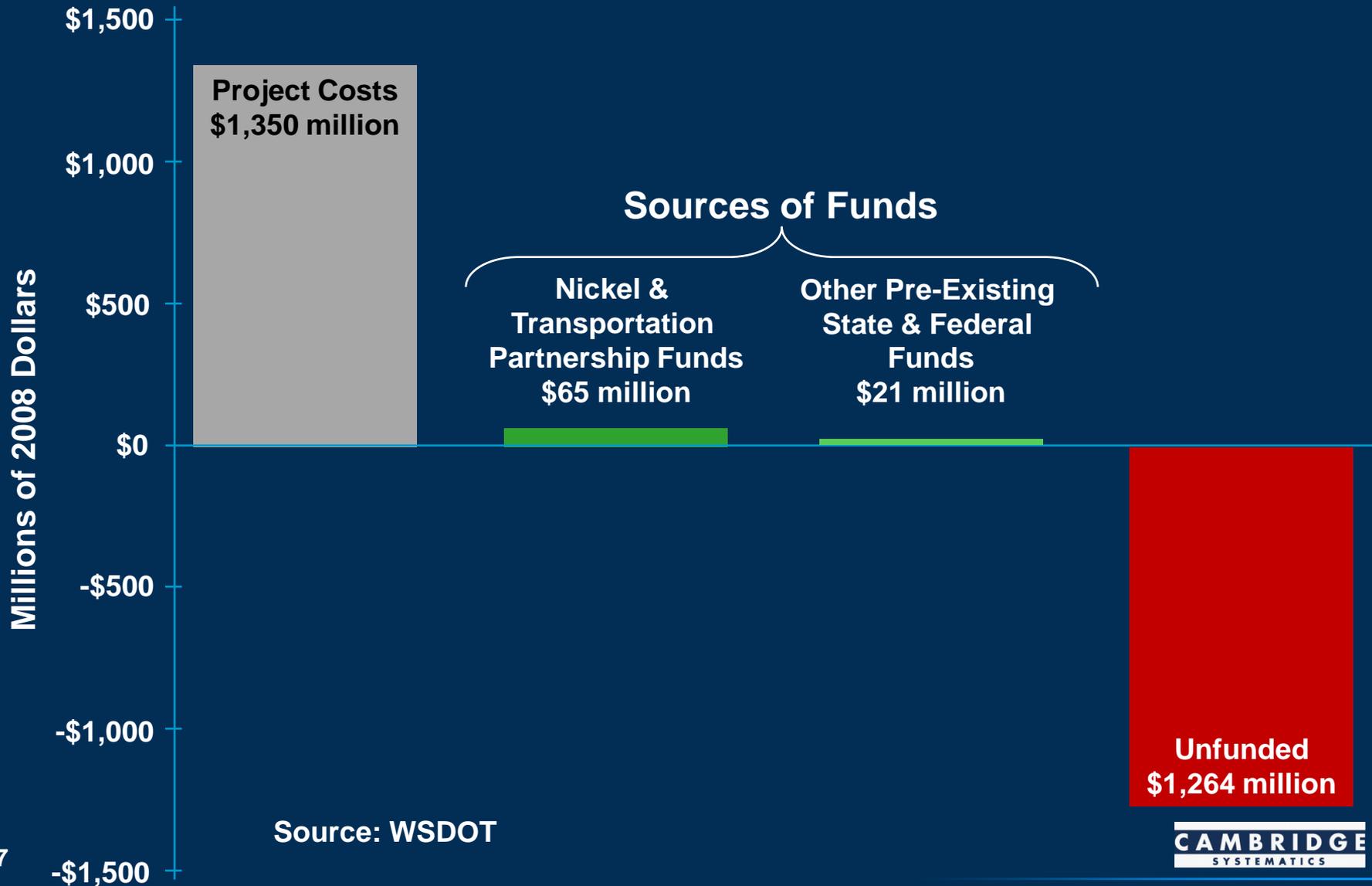
- **Provide direct route for freight and general traffic movements:**
  - **To Puget Sound Ports**
  - **To industrial areas of Seattle and South King County.**
- **Allow up to 9,000 trucks per day to bypass I-5, SR 99 and local streets**
- **Provide southern access to Sea-Tac International Airport**
- **Travel time between Seattle and Tacoma reduced by 12 minutes**
  - **Total public benefit of travel reduction: \$100 million per year**

# Performance of SR-509 in 2020 and 2040

## Average Daily Vehicle-Hours of Delay



# I-5/SR 509 Corridor Completion Project Financials (Millions of 2008 Dollars)

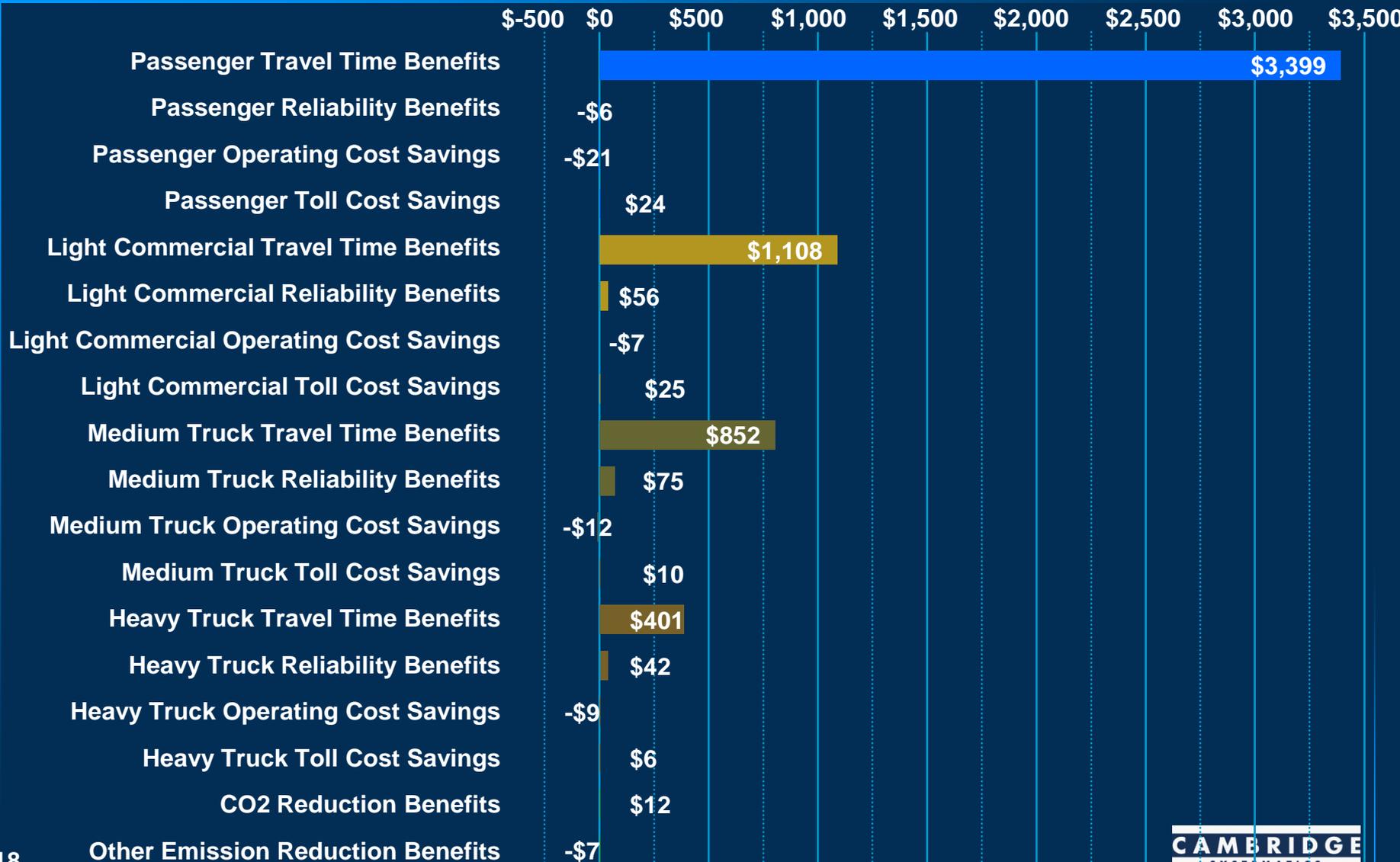


Source: WSDOT

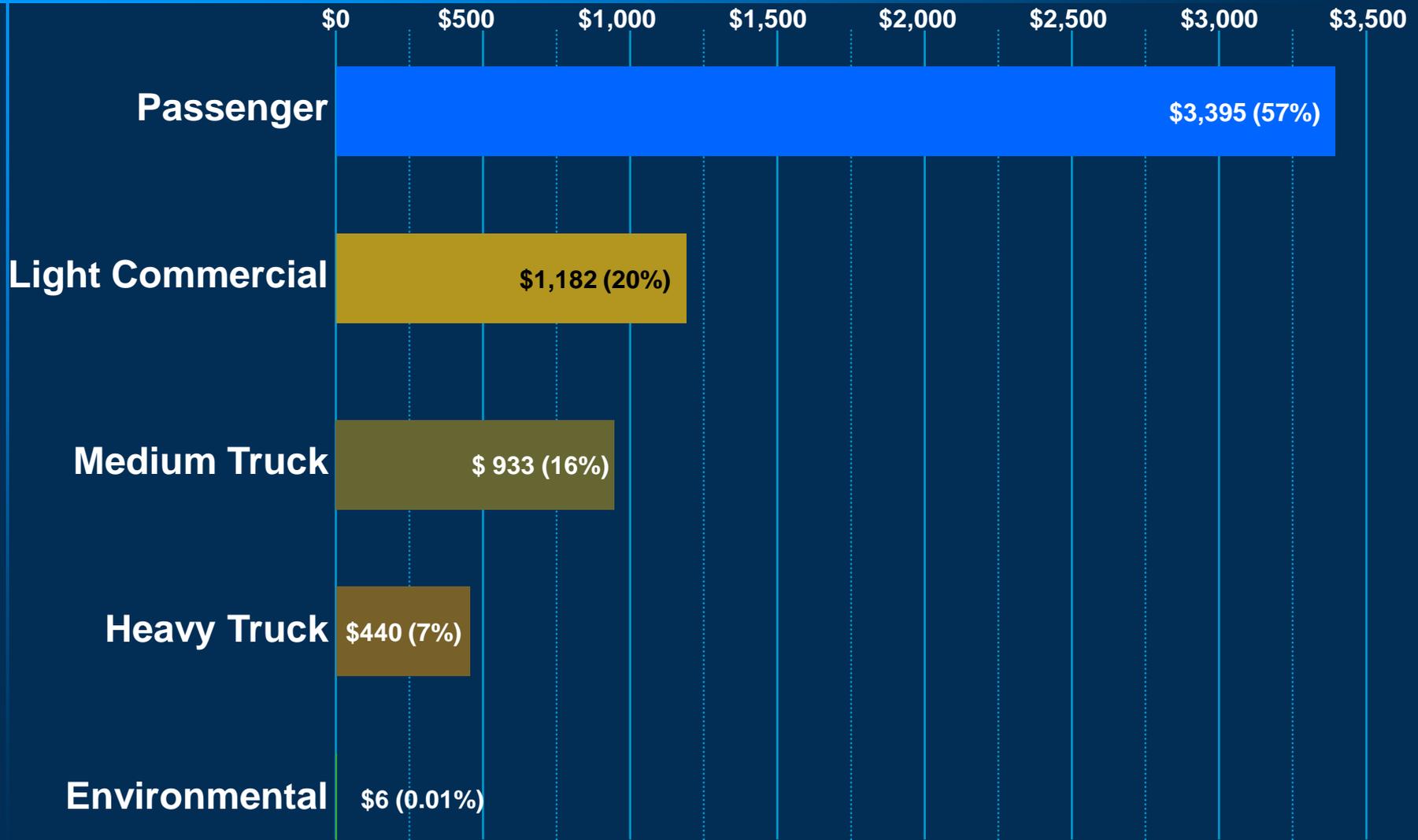
# I-5/SR 509 Corridor Completion

## Detailed Project Benefits

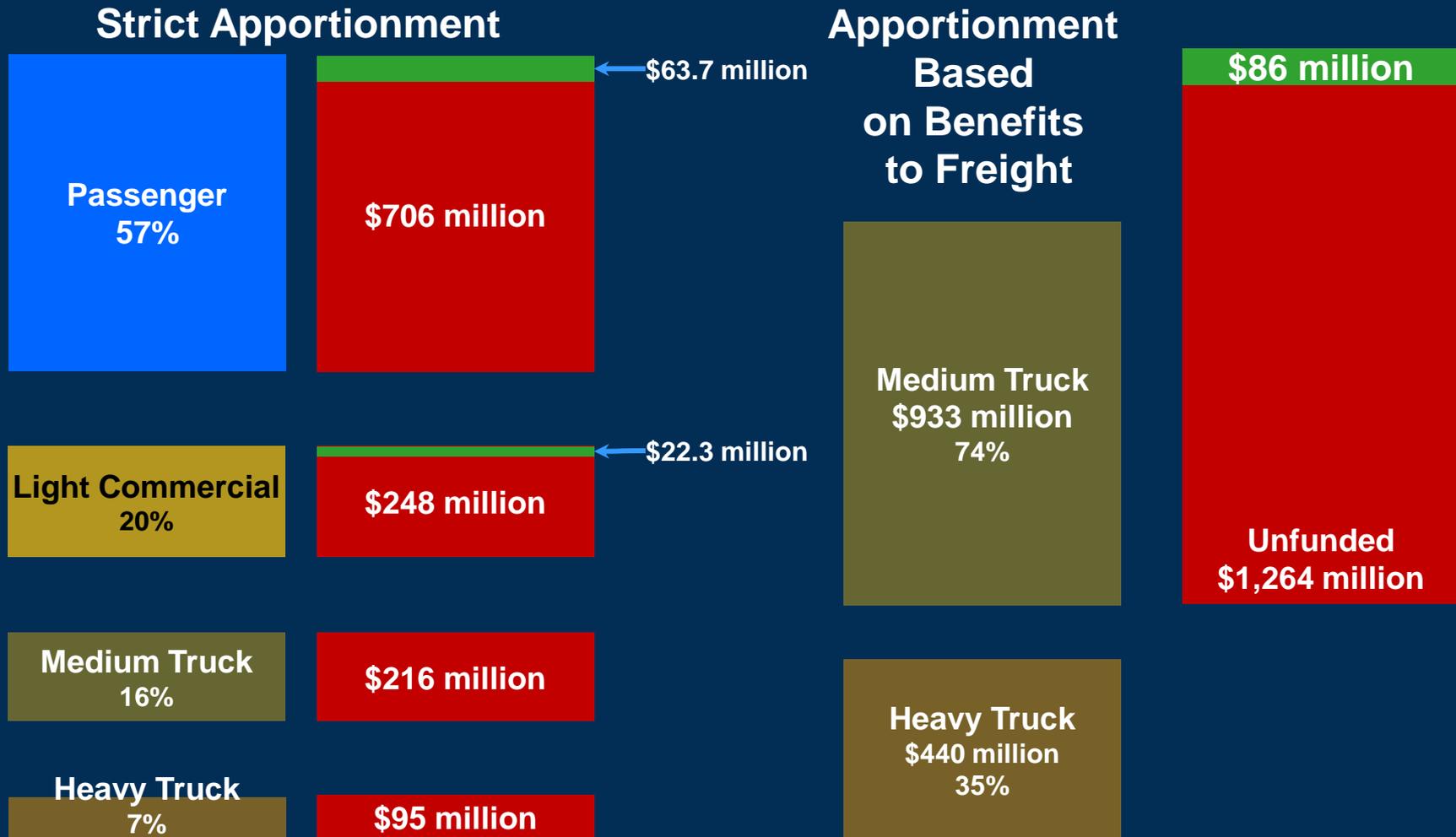
*(Millions of Current Dollars, 2021 - 2050)*



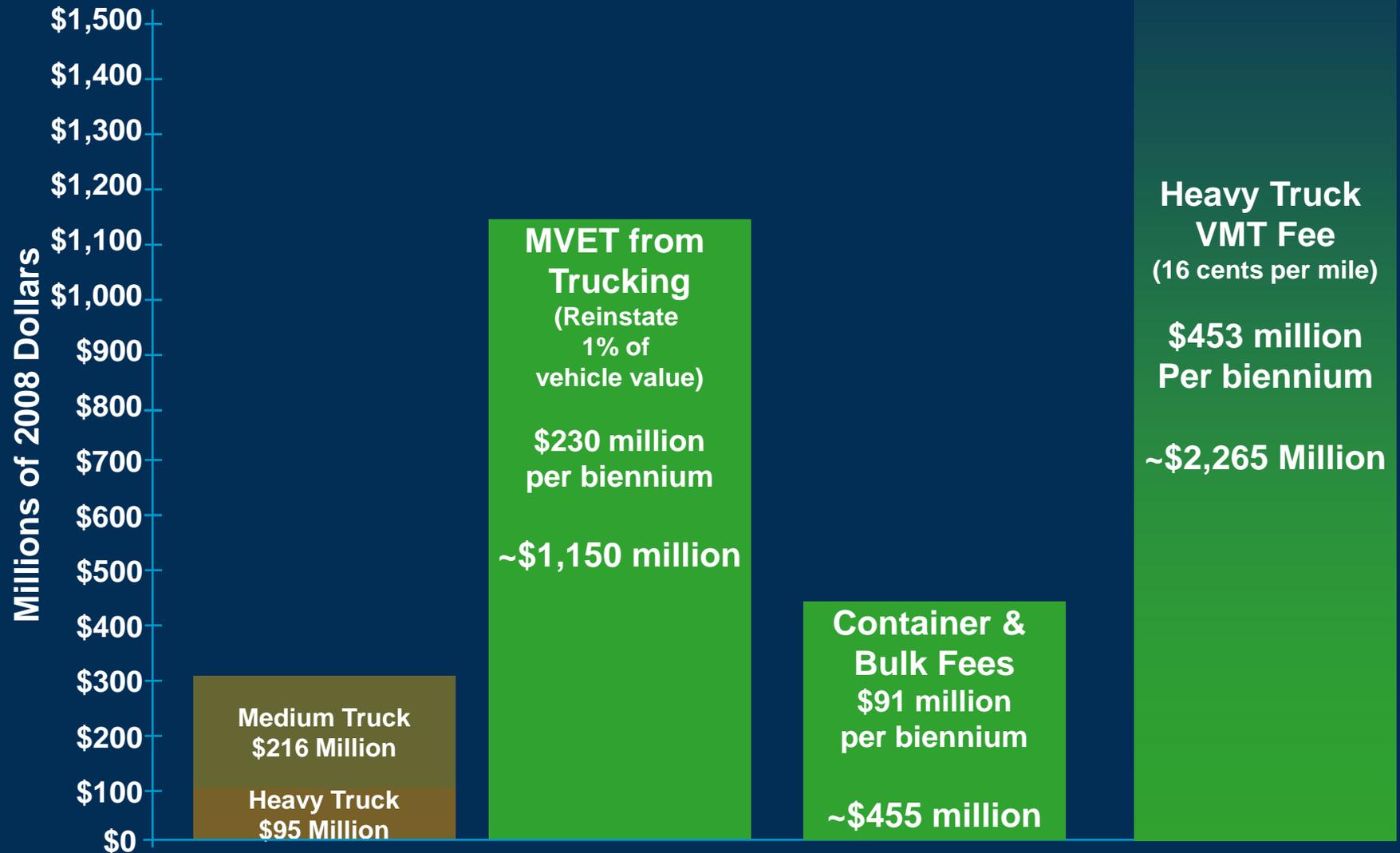
# I-5/SR 509 Corridor Completion Project Benefits (Millions of Current Dollars, 2021 - 2050)



# I-5/SR 509 Corridor Completion Possible Funding Scenario



# I-5/SR 509 Corridor Completion Possible Funding Scenario



# SR 167 Extension Project Description



- Two miles of 4-lane highway between SR 509 and I-5
- Four miles of 6-lane highway between Puyallup and I-5
- Interchanges at SR 161, Valley Ave. E, Interstate 5, 54th Ave. E and SR 509 .Two weigh stations and two park and ride lots
- Listed as priority freight project in:
  - Legislative Budget
  - WSDOT
  - FMSIB

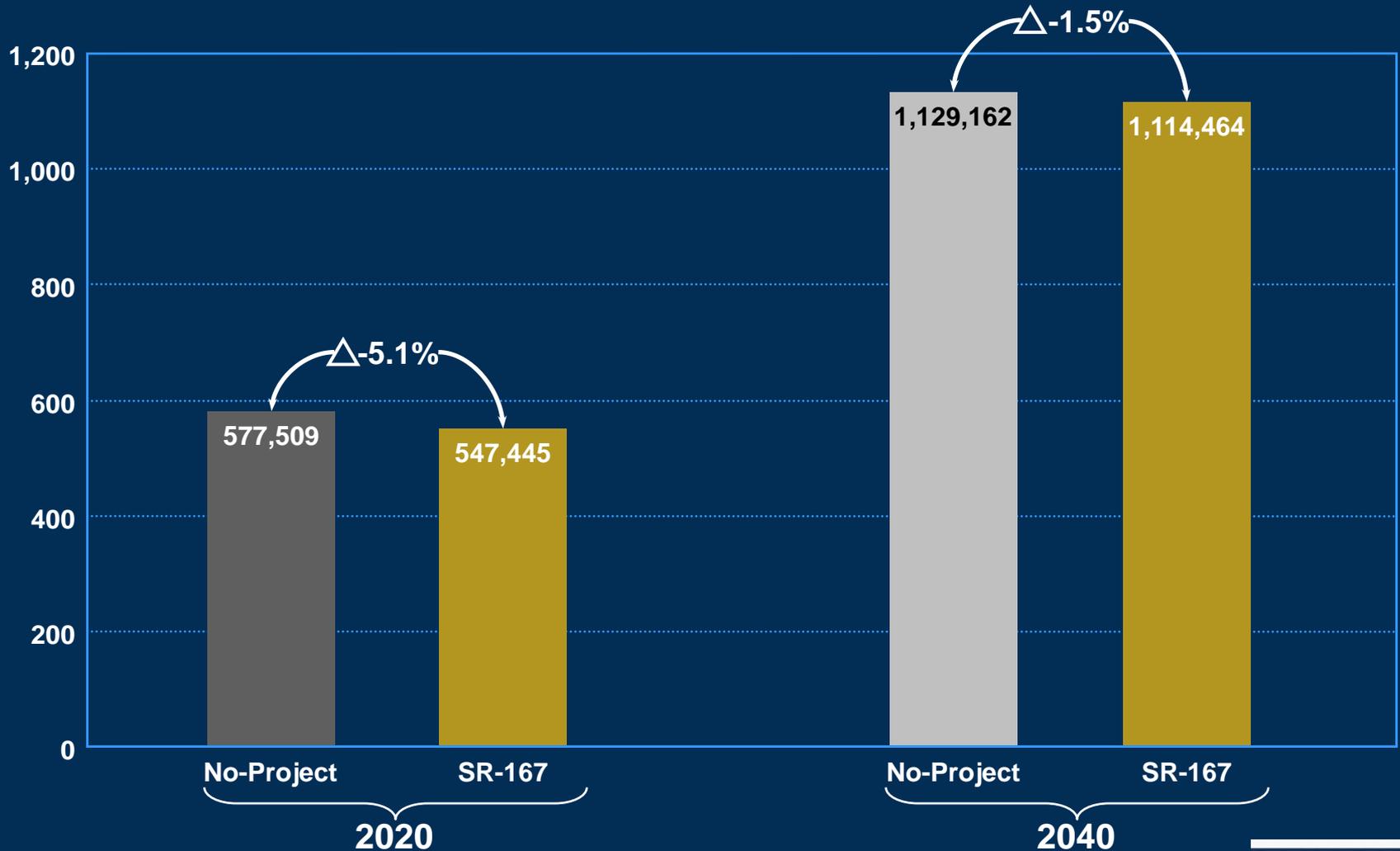
# SR 167 Extension

## Freight Benefits

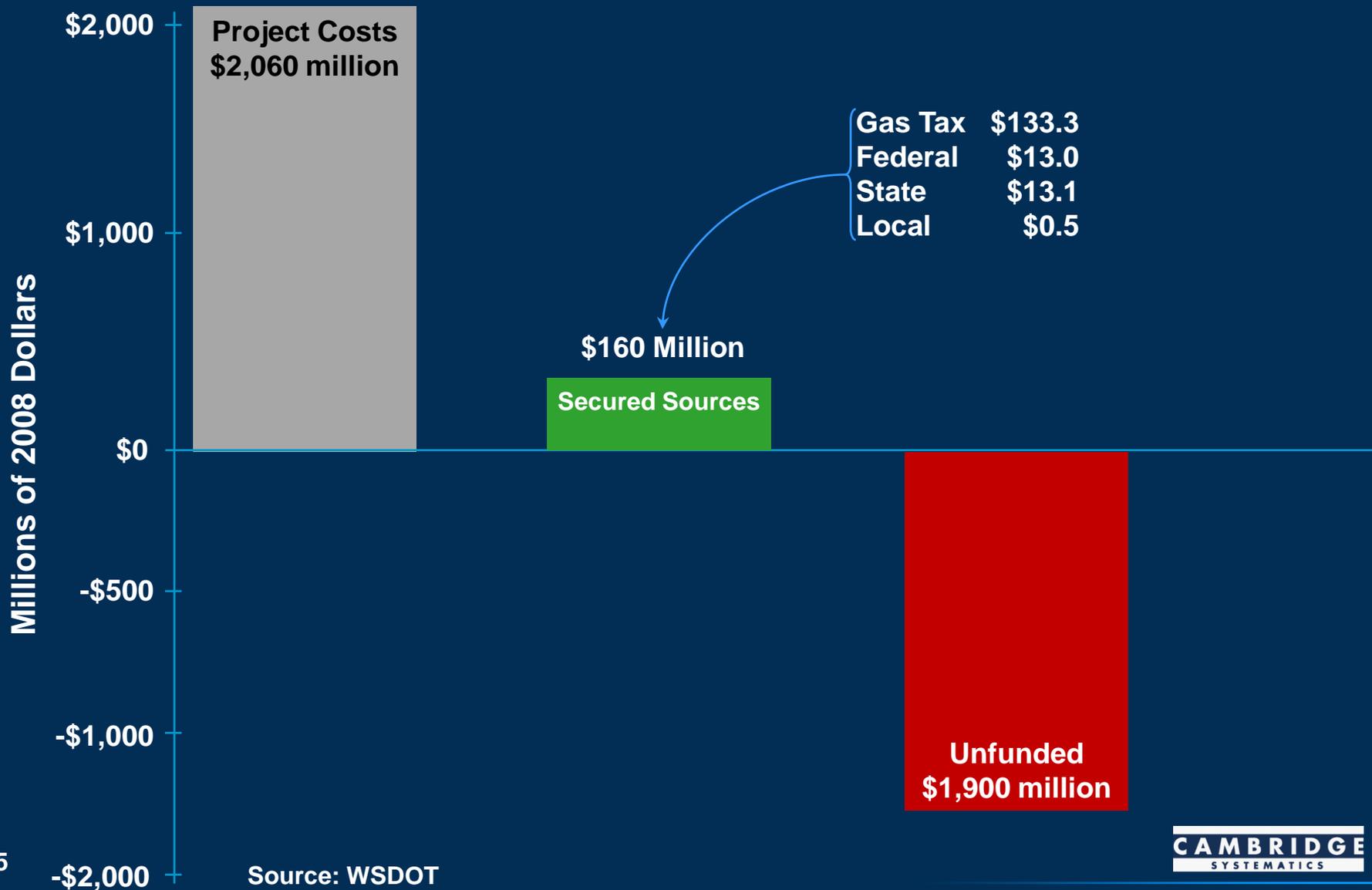
- Reduce travel delays of freight and passenger traffic
- Improve safety for traffic, pedestrians, and bicyclists
- Improve access between SR 167 and I-5
- Reduce flooded area along local creeks
- Improve air quality in the corridor

# Performance of SR-167 in 2020 and 2040

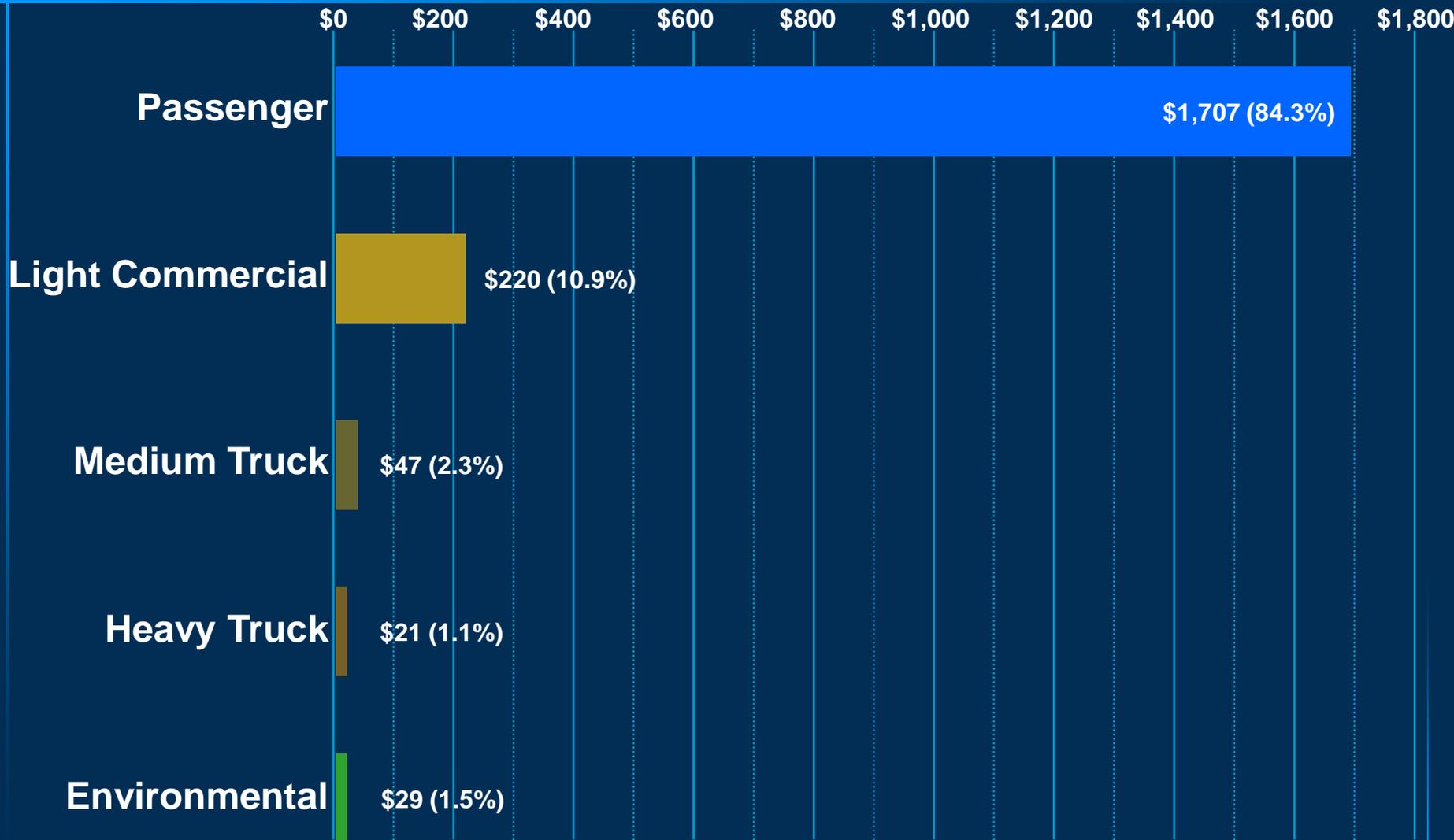
## Average Daily Vehicle-Hours of Delay



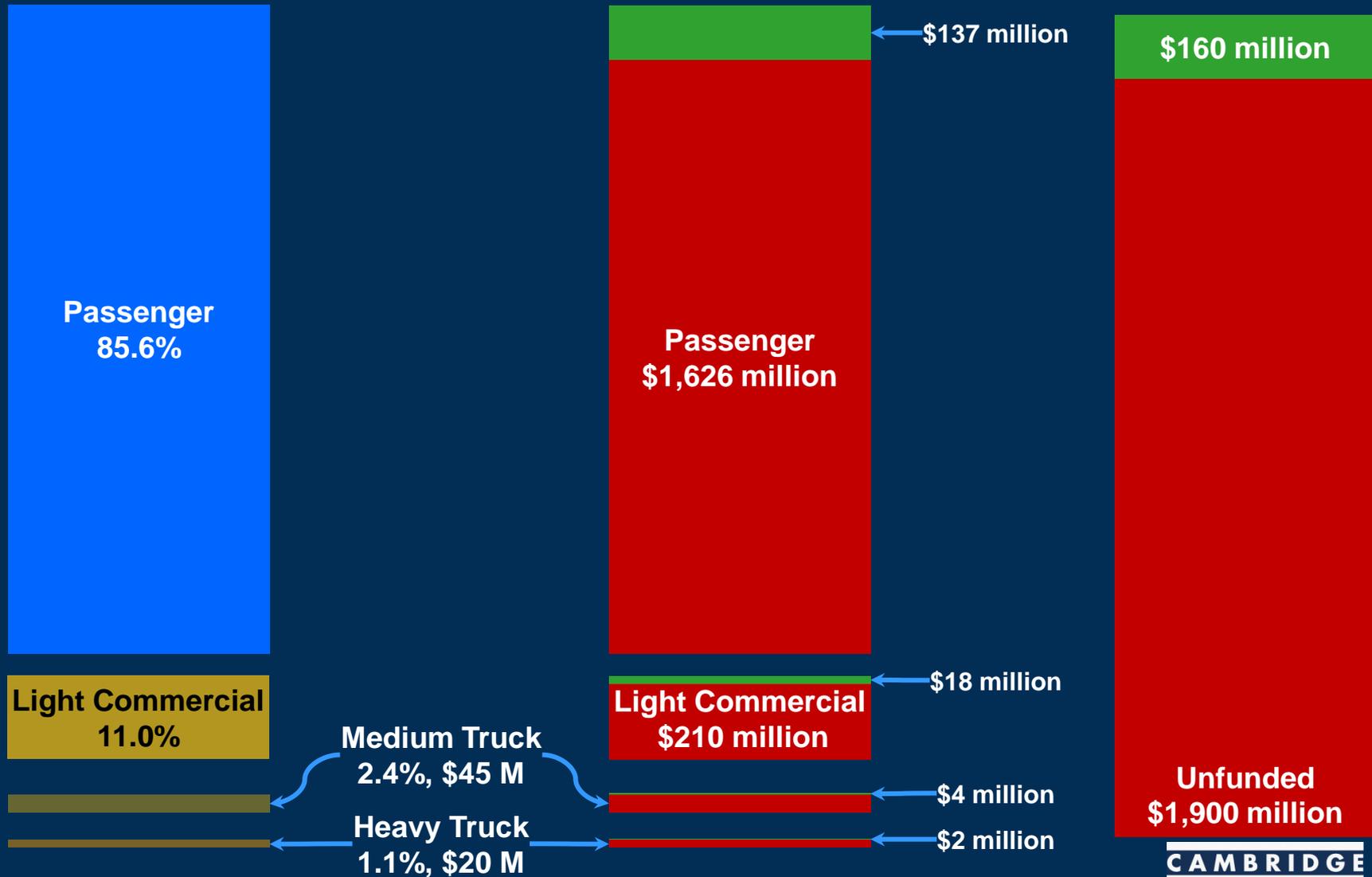
# SR 167 Extension Project Financials (Millions of 2008 Dollars)



# SR 167 Extension Project Benefits *(Millions of Current Dollars, 2021 - 2050)*



# SR 167 Extension Possible Funding Scenario



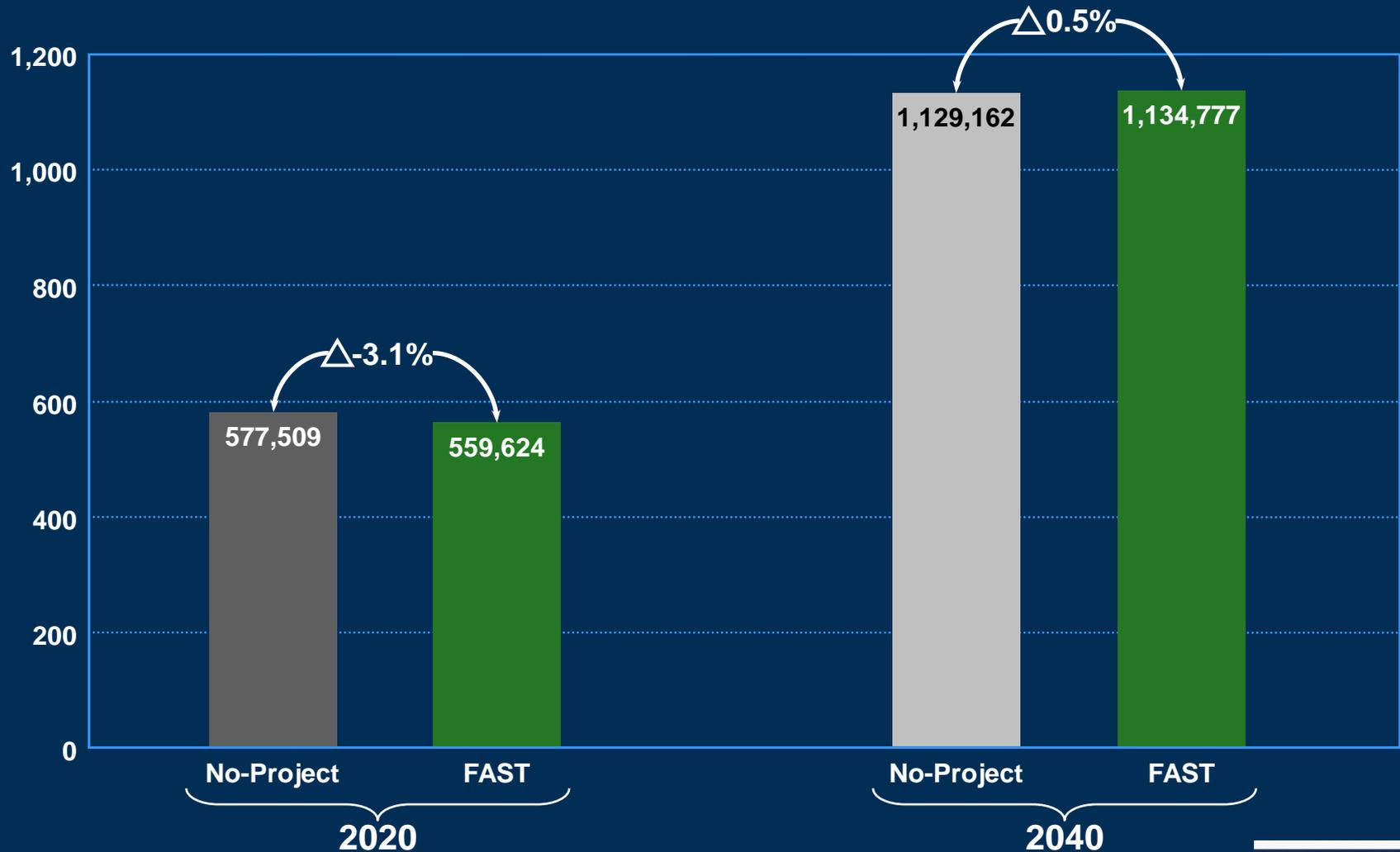
# FAST Corridor Unfunded Projects

## Grade Separations and Widening

1. North Canyon Rd Extension Grade Separation
2. East Marginal Way Widening
3. South Spokane Widening
4. M St. SE Grade Separation
5. 70<sup>th</sup> Ave. E & Valley Ave. Widening
6. Lincoln Ave. Grade Separation
7. Lander St. Overpass
8. Willis St. Double Grade Separation
9. S. 228th St. Double Grade Separation & Widening
10. Strander Boulevard Grade Separation & Widening
11. SR 202 Corridor Widening  
*(FMSIB, not on FAST Corridor)*
12. SR 18 Widening
13. I-5 Port of Tacoma Rd. Overcrossing Widening
14. S 212th St. Double Grade Separation
15. 8th St.-UP Grade Separation & Widening *(Deferred)*

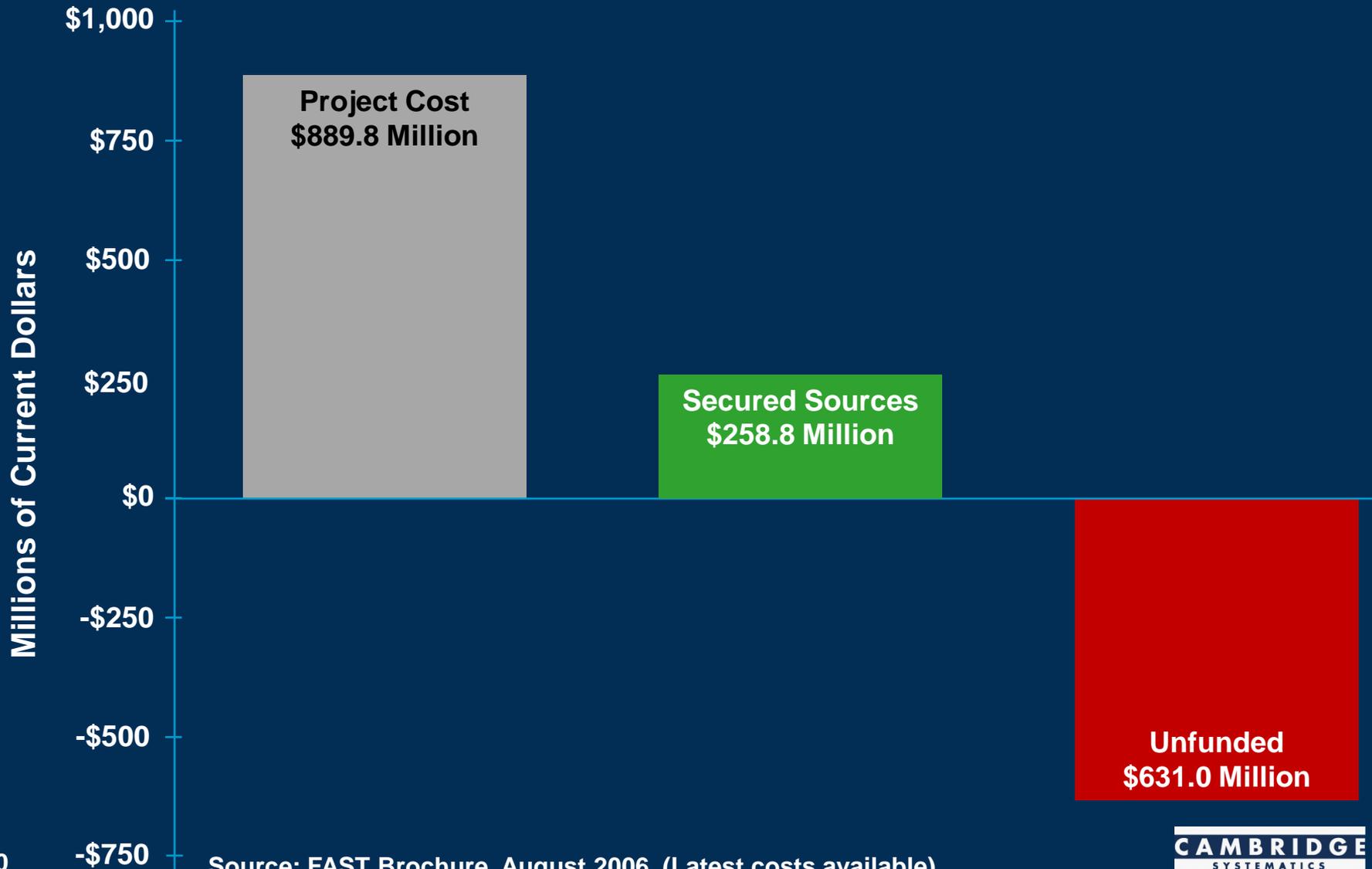
# Performance of FMSIB-FAST Corridor Projects

## Average Daily Vehicle-Hours of Delay in 2020 and 2040



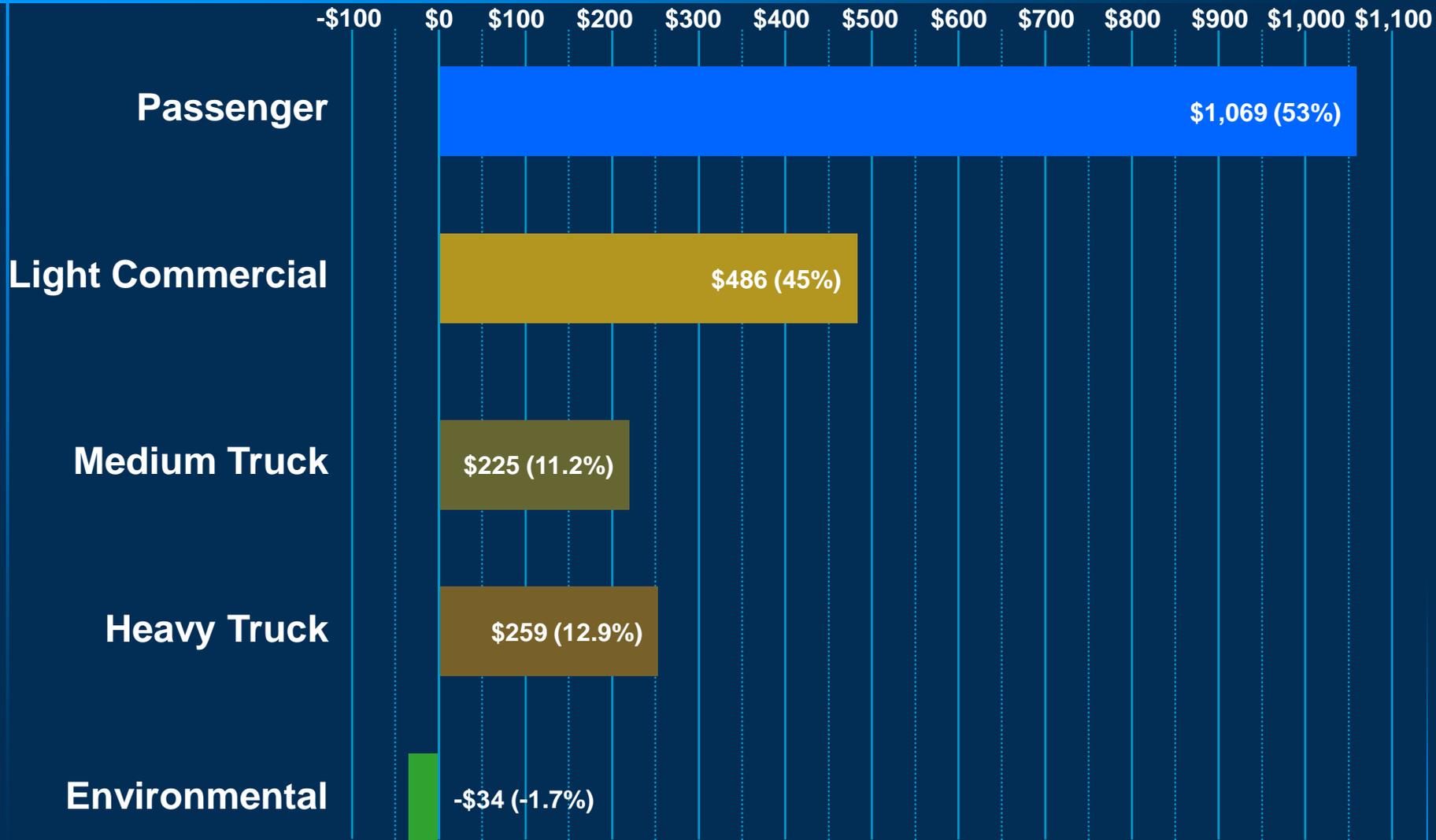
# Summary of FMSIB-FAST Projects

## Project Financials (Millions of 2006 Dollars)



# FAST Corridor Projects

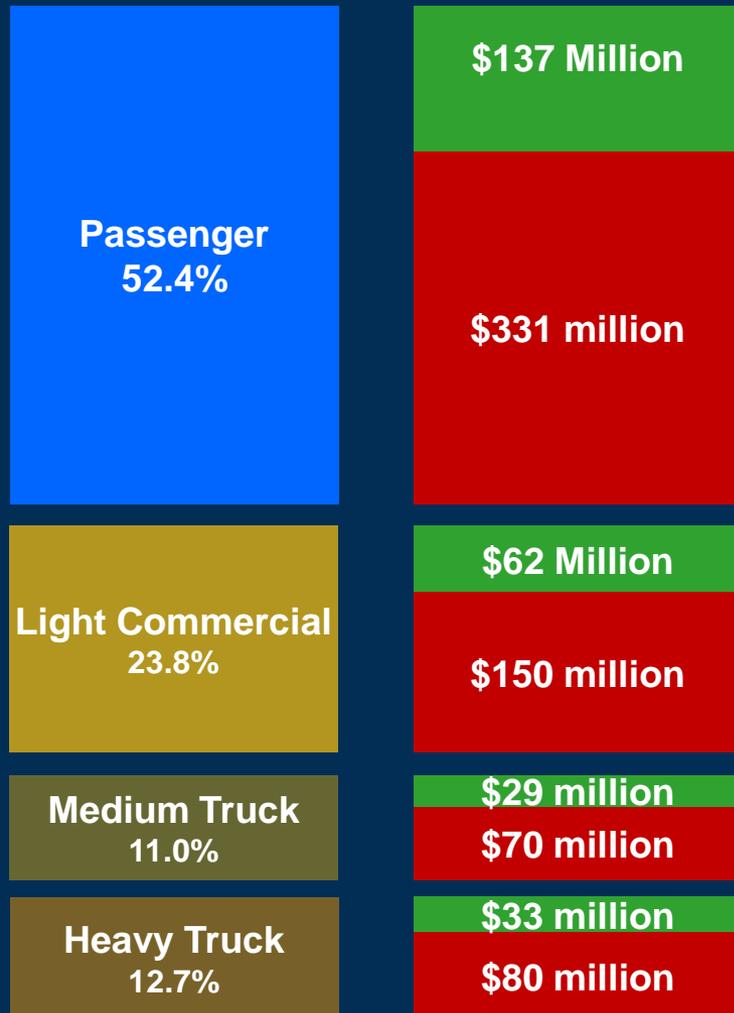
## Project Benefits *(Millions of Current Dollars, 2021 - 2050)*



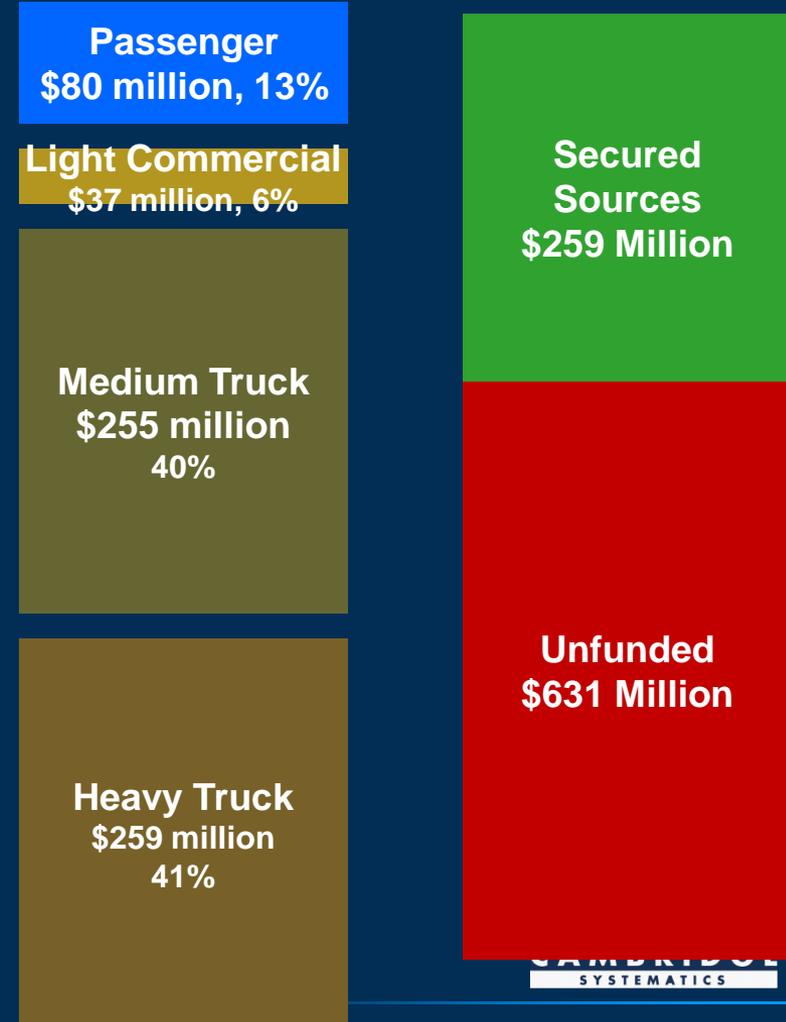
# FAST Corridor Projects Possible Funding Scenario

**PRELIMINARY RESULTS**

## Strict Apportionment

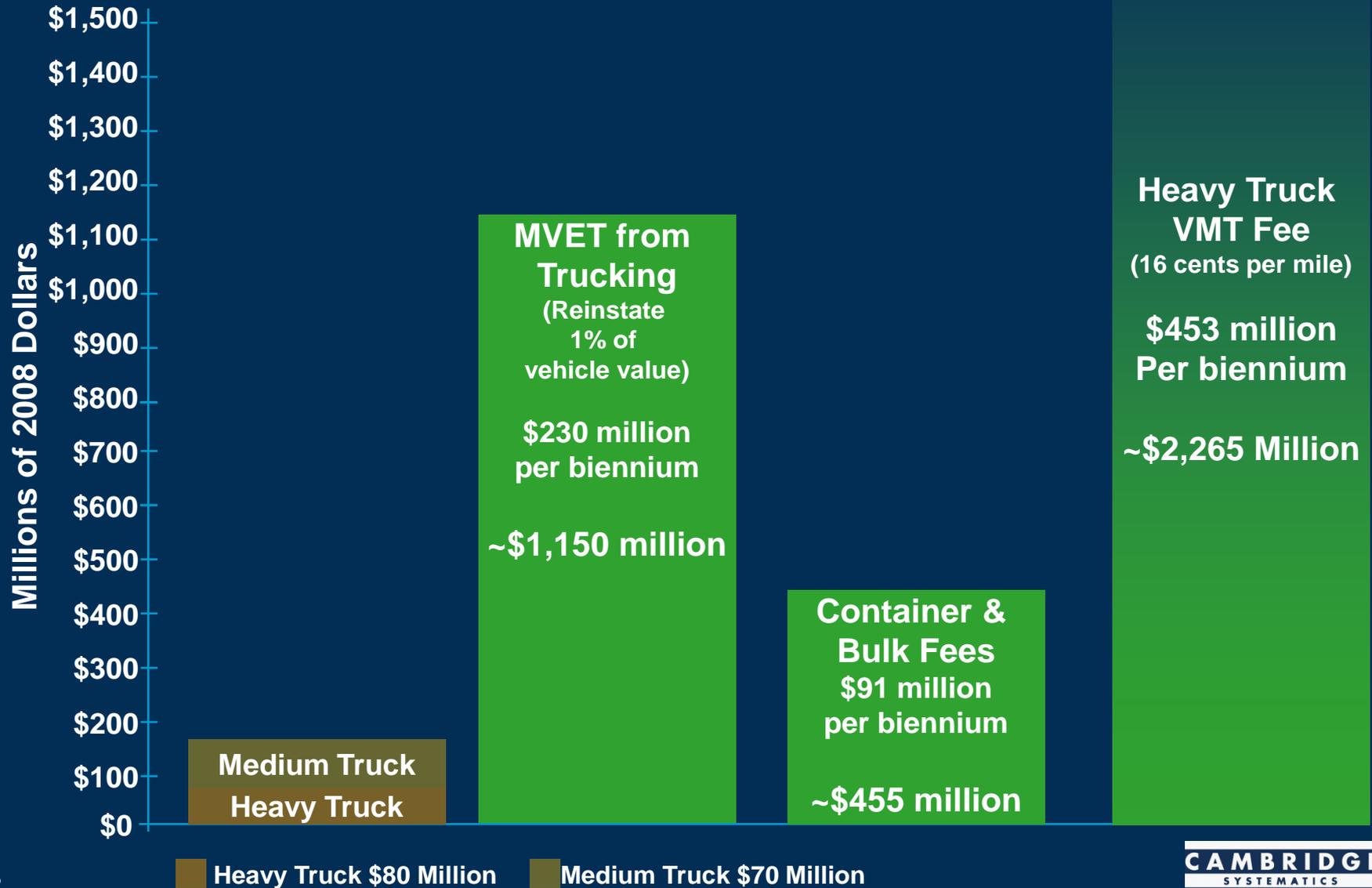


## Apportionment Based on Benefits to Freight



# FAST Corridor Projects Possible Funding Scenario

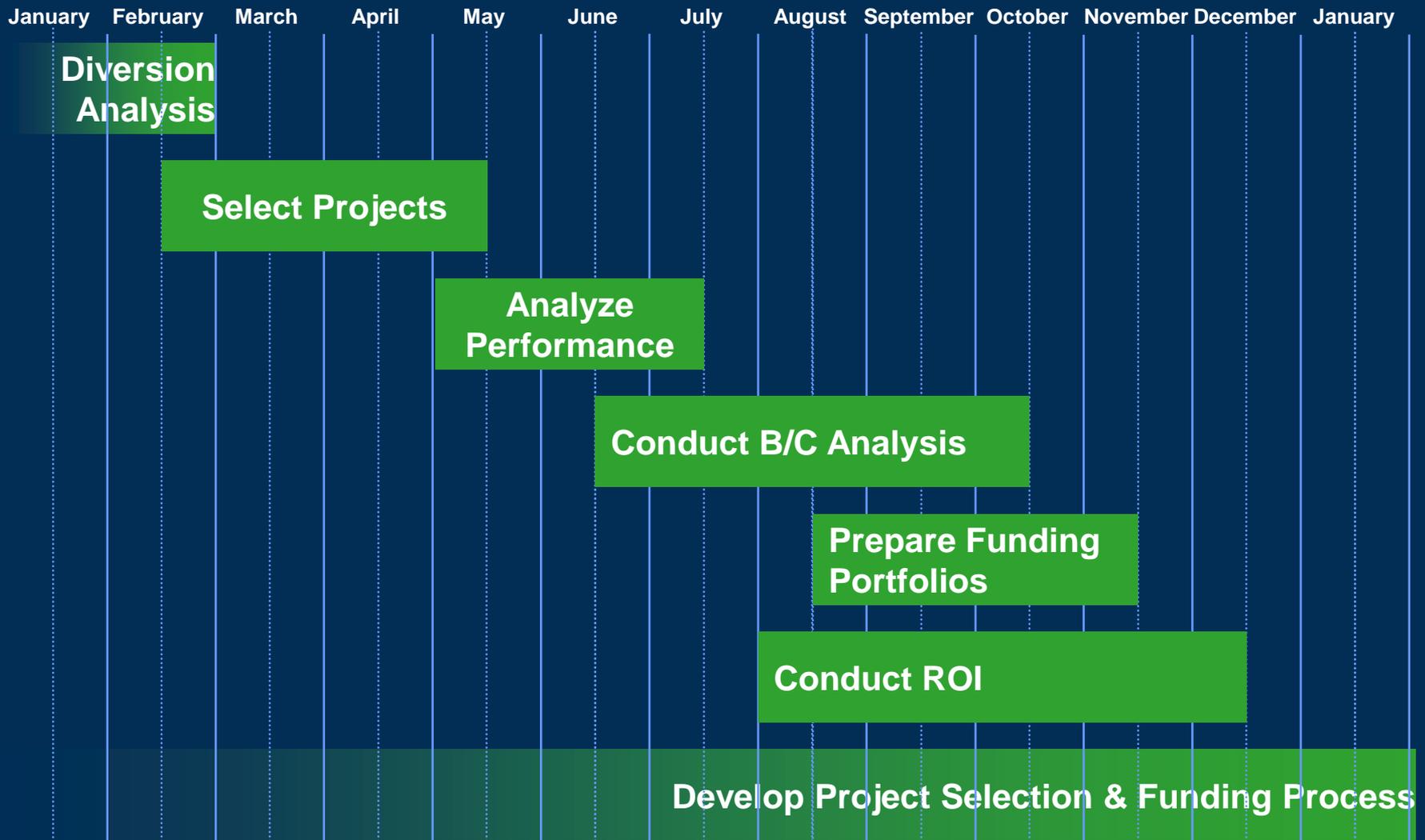
**PRELIMINARY  
RESULTS**



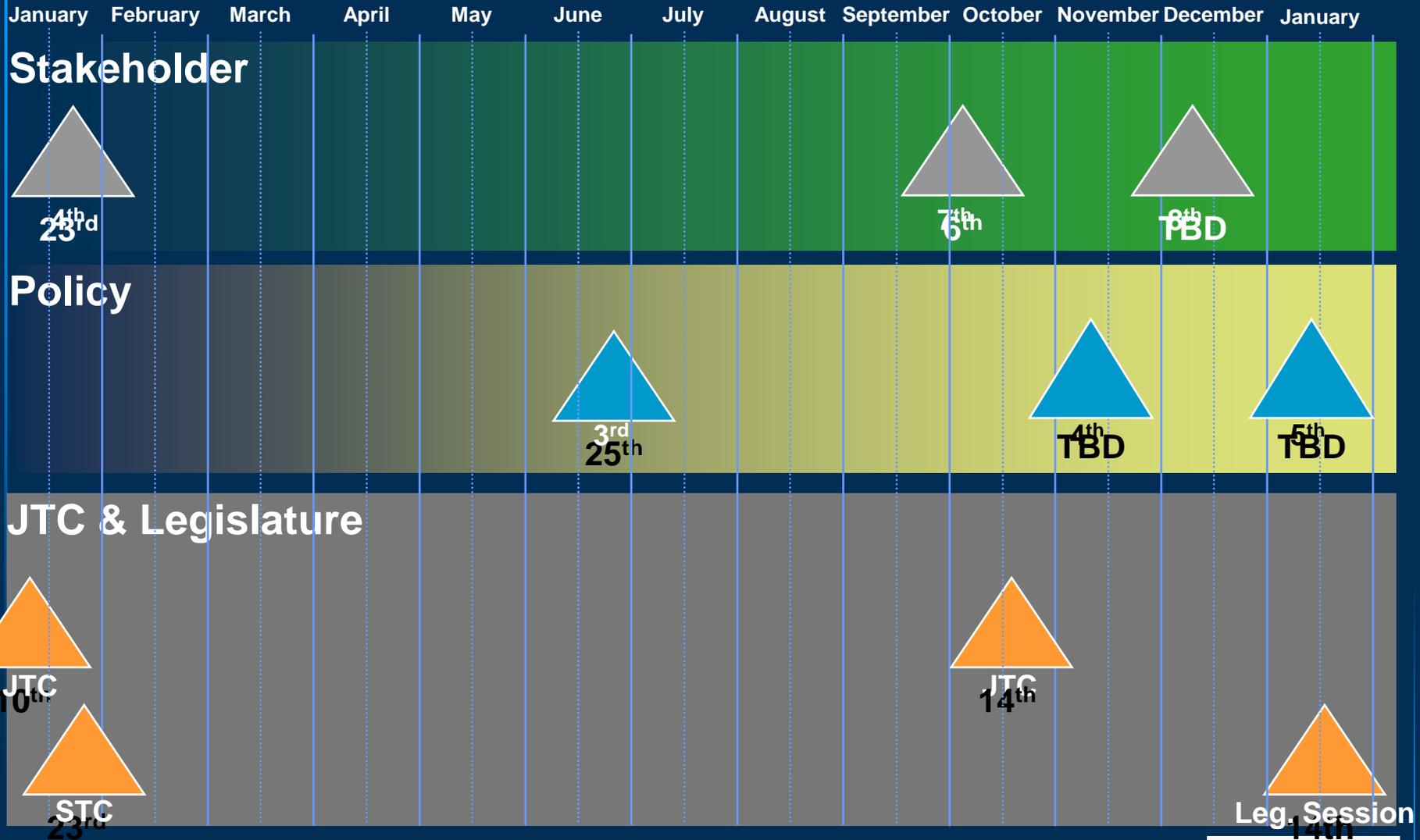
# Wrap-Up

- Discussions of proposed nexus-based funding approach
- Next steps & future stakeholder meetings
- Adjournment

# Schedule Proposed Worksteps



# Schedule of Stakeholder & Policy Group Meetings

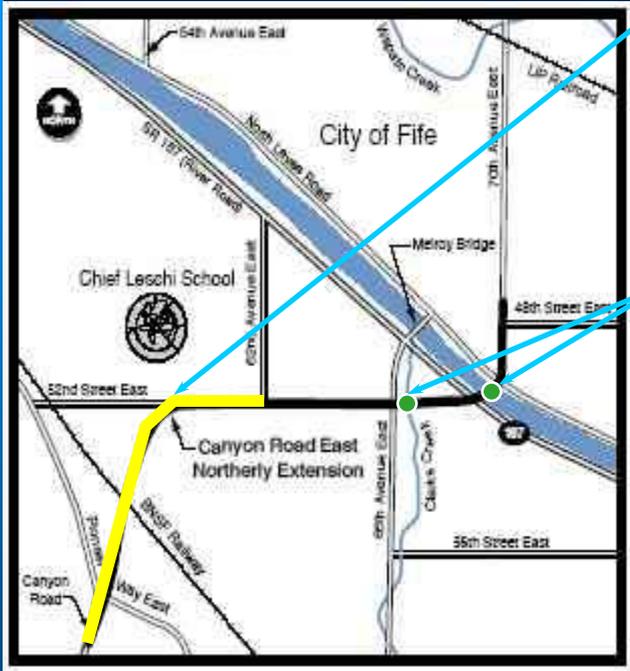


# Adjournment

# Appendix

## FAST Corridor Projects

# North Canyon Rd Extension Project Description



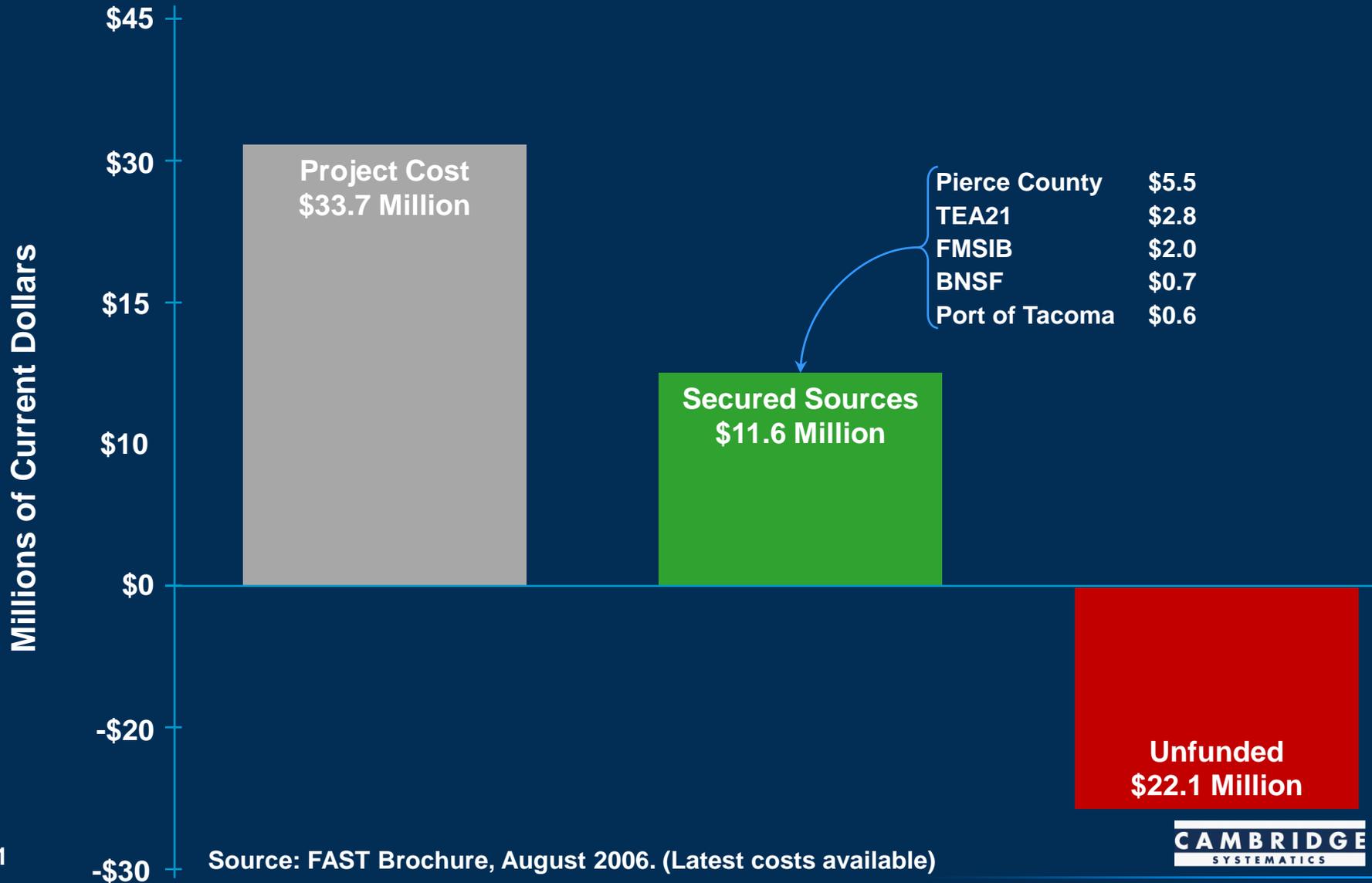
- New overcrossing of the BNSF mainline from Pioneer Way to 62nd Avenue E
- Total benefits are linked to the construction of new bridges over the Puyallup River and over Clarks Creek
- Listed as priority freight project in:
  - Legislative Budget
  - FMSIB
  - FAST

# North Canyon Rd Extension

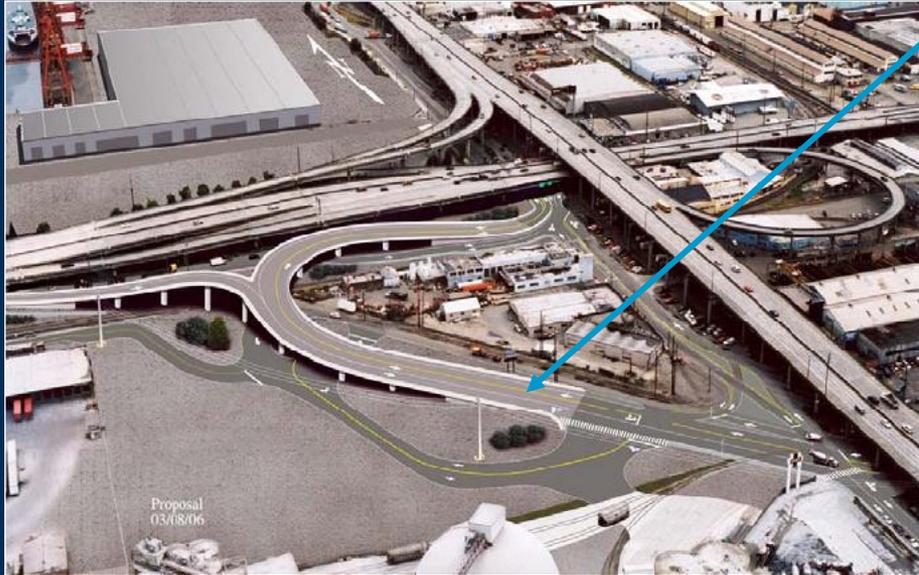
## Freight Benefits

- **Accommodate freight and general purpose highway growth.**
- **Mitigate existing freight and general purpose highway congestion.**
- **Allow for closure of an existing at-grade crossing; thereby improving safety and traffic flow, both for highway and rail.**

# North Canyon Rd Extension Project Financials (Millions of 2006 Dollars)



# East Marginal Way Project Description

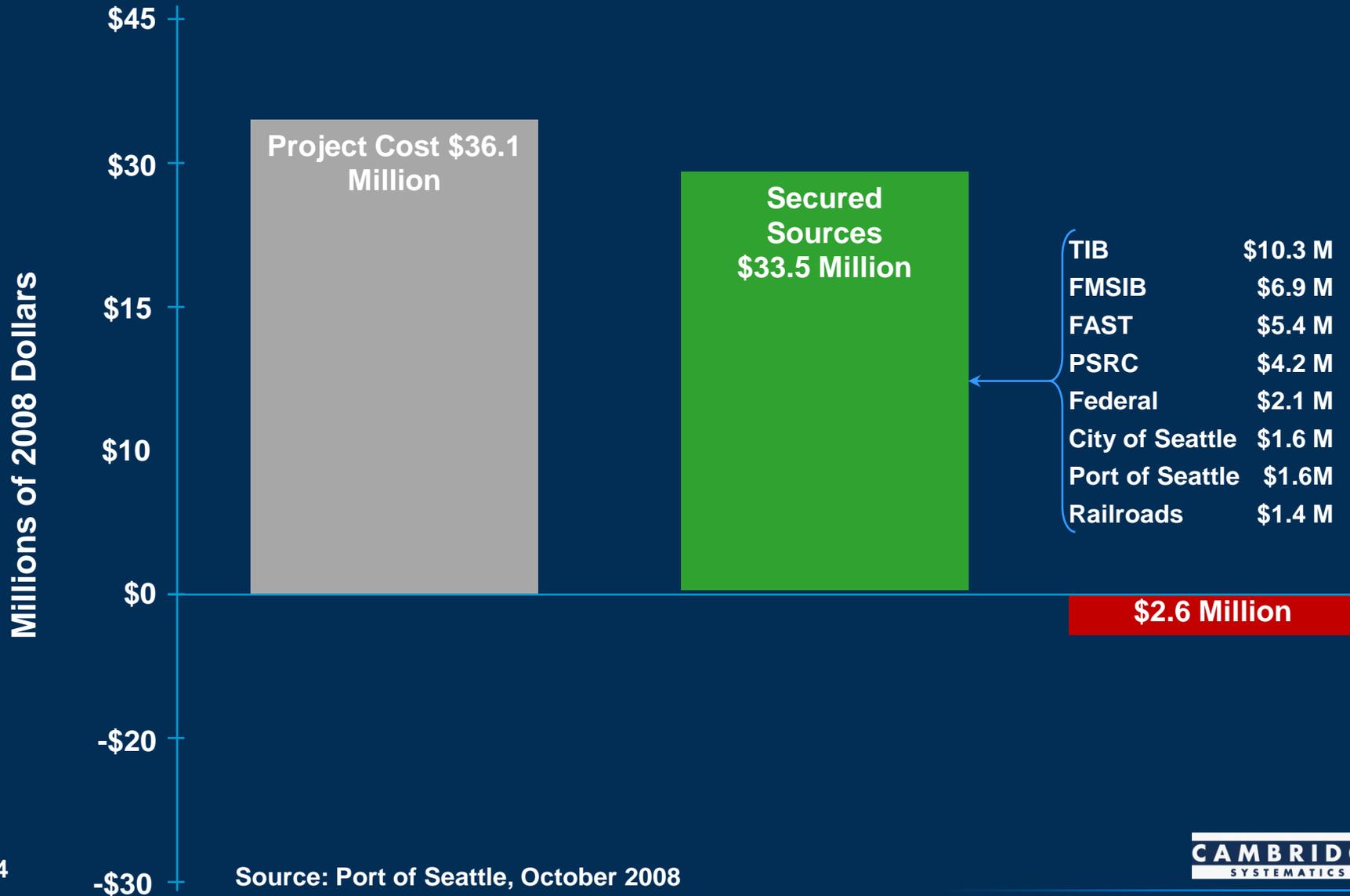


- Provide a north- and south-bound grade separation on Duwamish Avenue South
- Project was fully funded but because of construction delay there is a shortfall
- Listed as priority freight project in:
  - FMSIB List
  - FAST

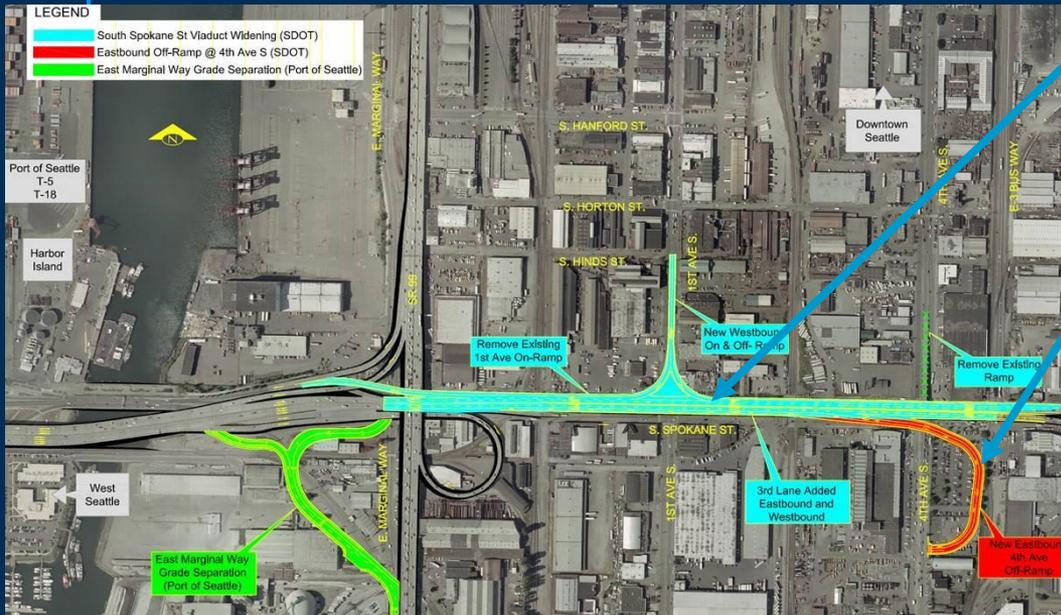
# East Marginal Way Freight Benefits

- **Improve safety by eliminating rail/highway conflicts at the existing at-grade crossing**
- **Reduce vehicle delay at railroad tracks through grade separation**
- **Improve air quality by reducing delay-related idling of trucks and other vehicles**
- **Facilitate greater efficiencies in an area of significant intermodal and multimodal activity**
- **Complement ITS activity at the Port and City**

# East Marginal Way Project Financials (Millions of 2008 Dollars)



# South Spokane Project Description

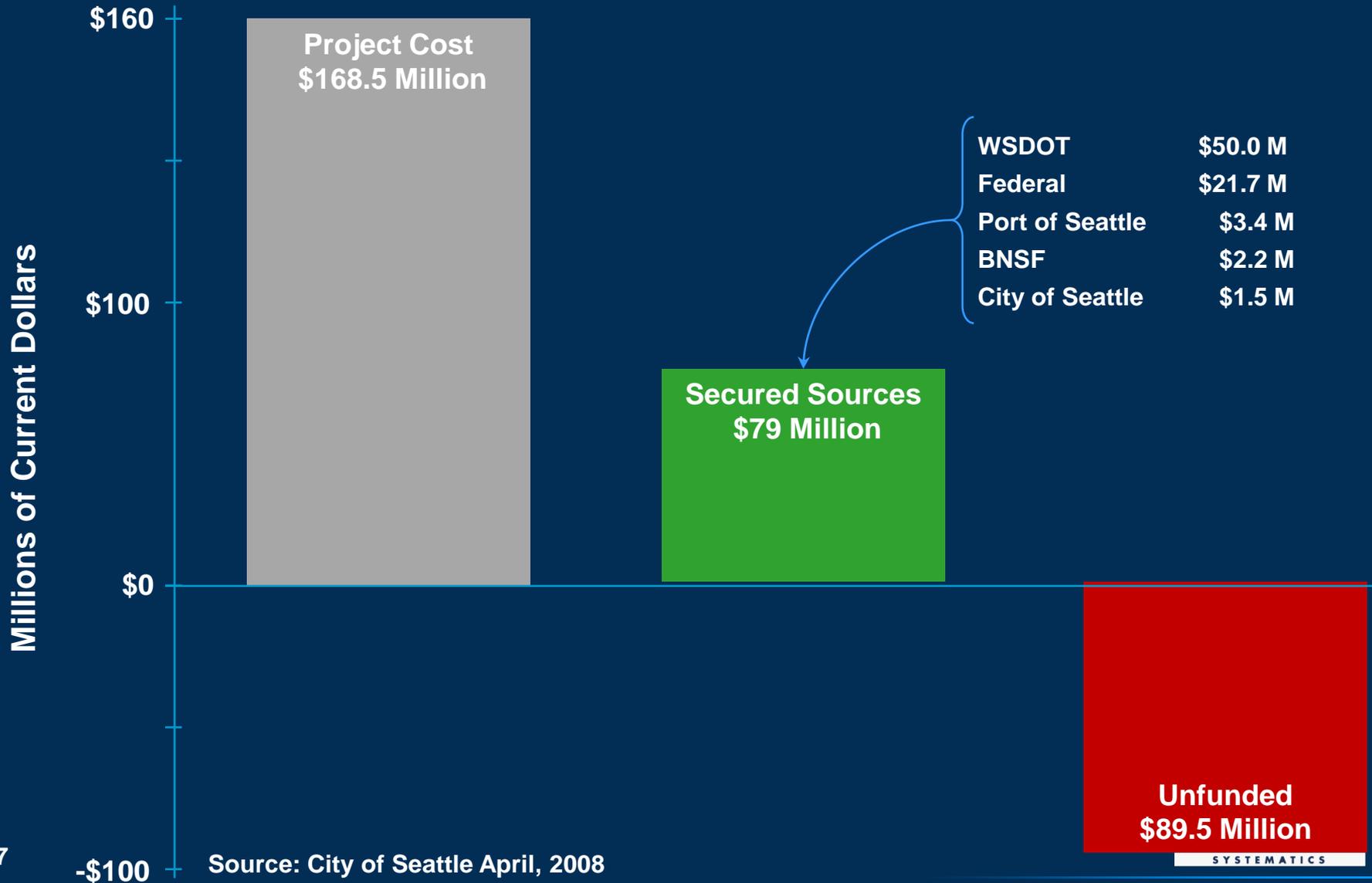


- South Spokane Viaduct widening (unfunded)
- Eastbound off Ramp (fully funded)
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - RTID

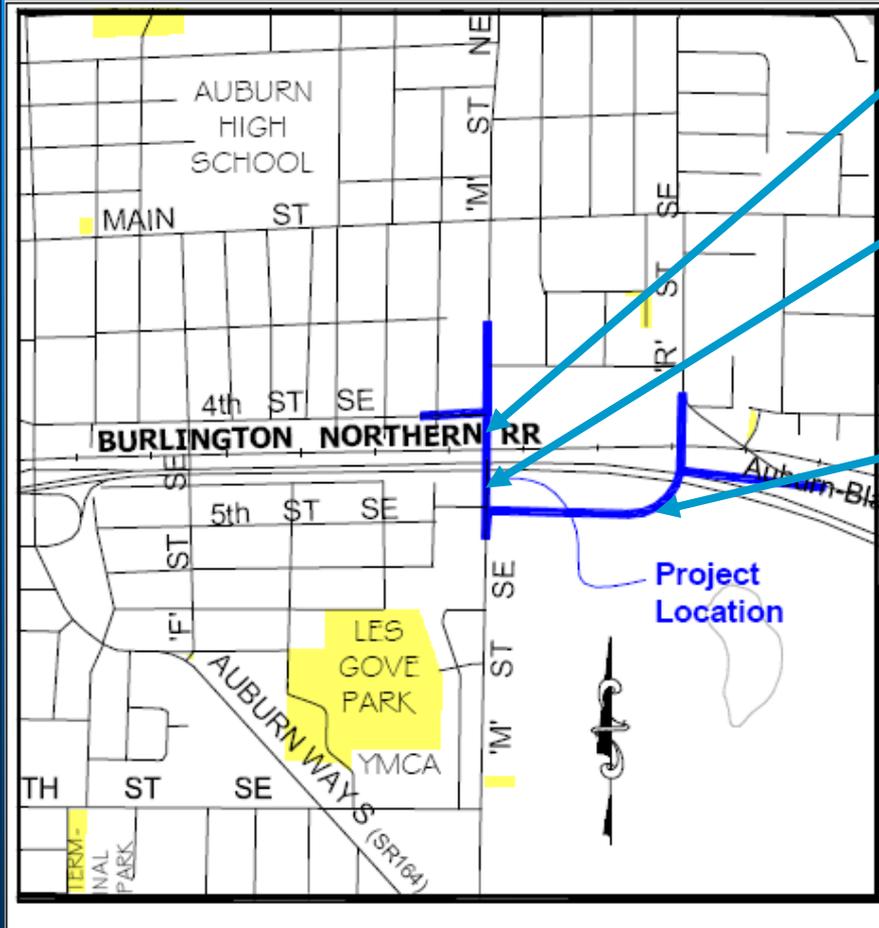
# South Spokane Freight Benefits

- **Improve safety on a route that has one of the highest accident-per mile ratios within the city.**
- **Reduce traffic delay caused by current narrow lanes and lack of shoulders.**
- **Improve capacity for trucks by more than 10 percent.**
- **Enhance access to the state's largest manufacturing and industrial center.**
- **Complete seismic reinforcement of the 60-year old structure.**

# South Spokane Project Financials (Millions of 2008 Dollars)



# M Street SE Grade Separation Project Description



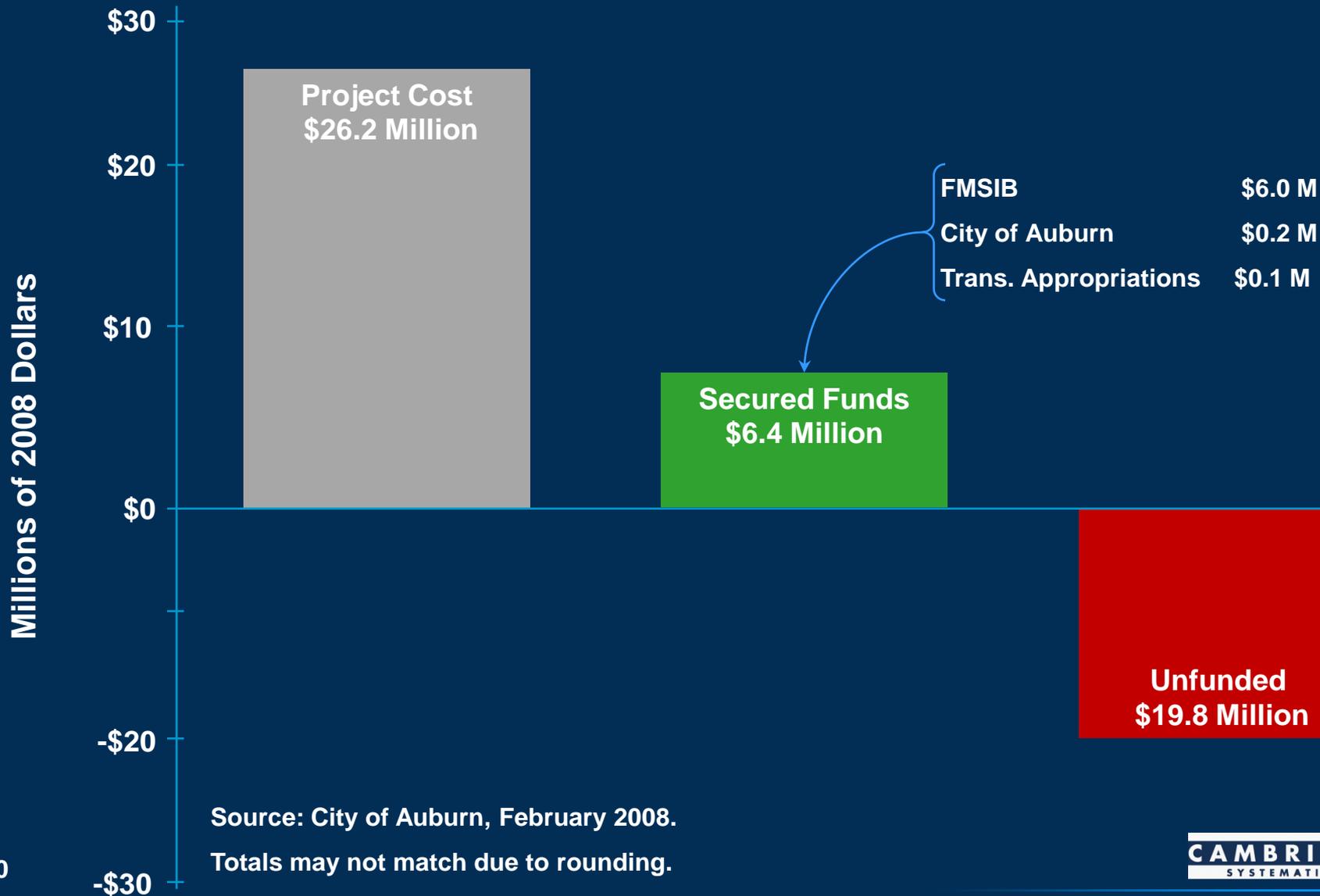
- Grade separated crossing with BNSF/Stampede Pass
- Widen 'M' Street SE for two lanes in each direction to help relieve congestion;
- New roadway connection between 'M' Street SE and 'R' Street/Auburn-Black
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget

# M Street Grade Separation

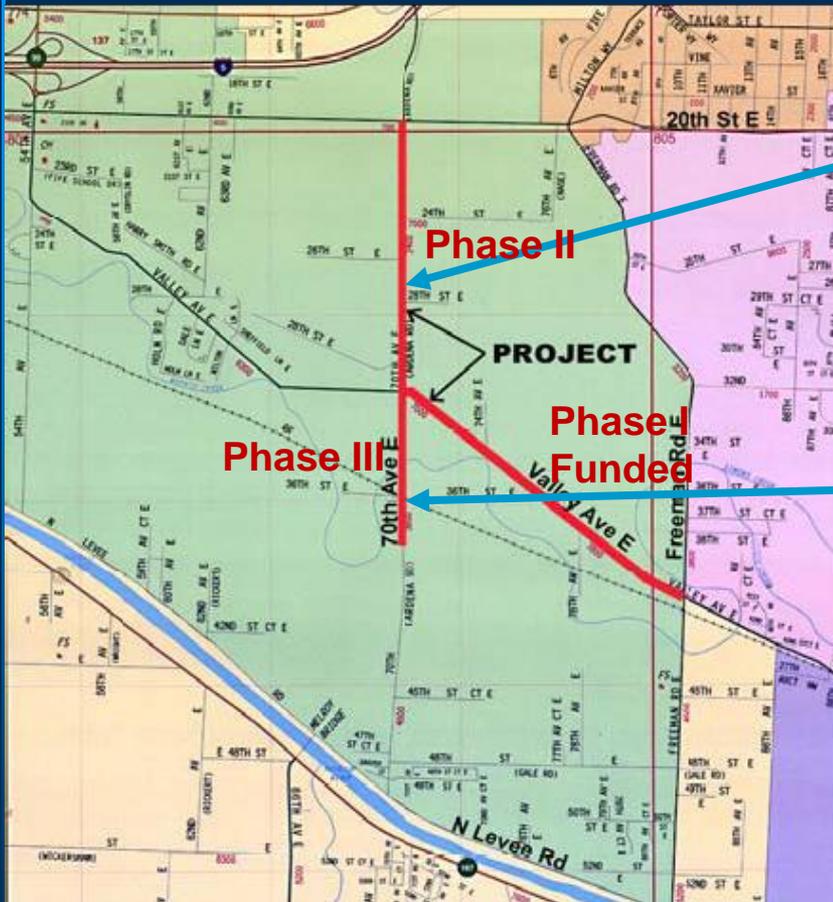
## Freight Benefits

- Reduce rail and vehicle delays
- Improve emergency vehicle access
- Increase roadway capacity to accommodate 2030 traffic volumes
- Improve safety by eliminating 53 daily at-grade school bus crossings

# M Street Grade Separation Project Financials (Millions of 2008 Dollars)



# 70<sup>th</sup> Ave. E & Valley Ave. Widening Project Description



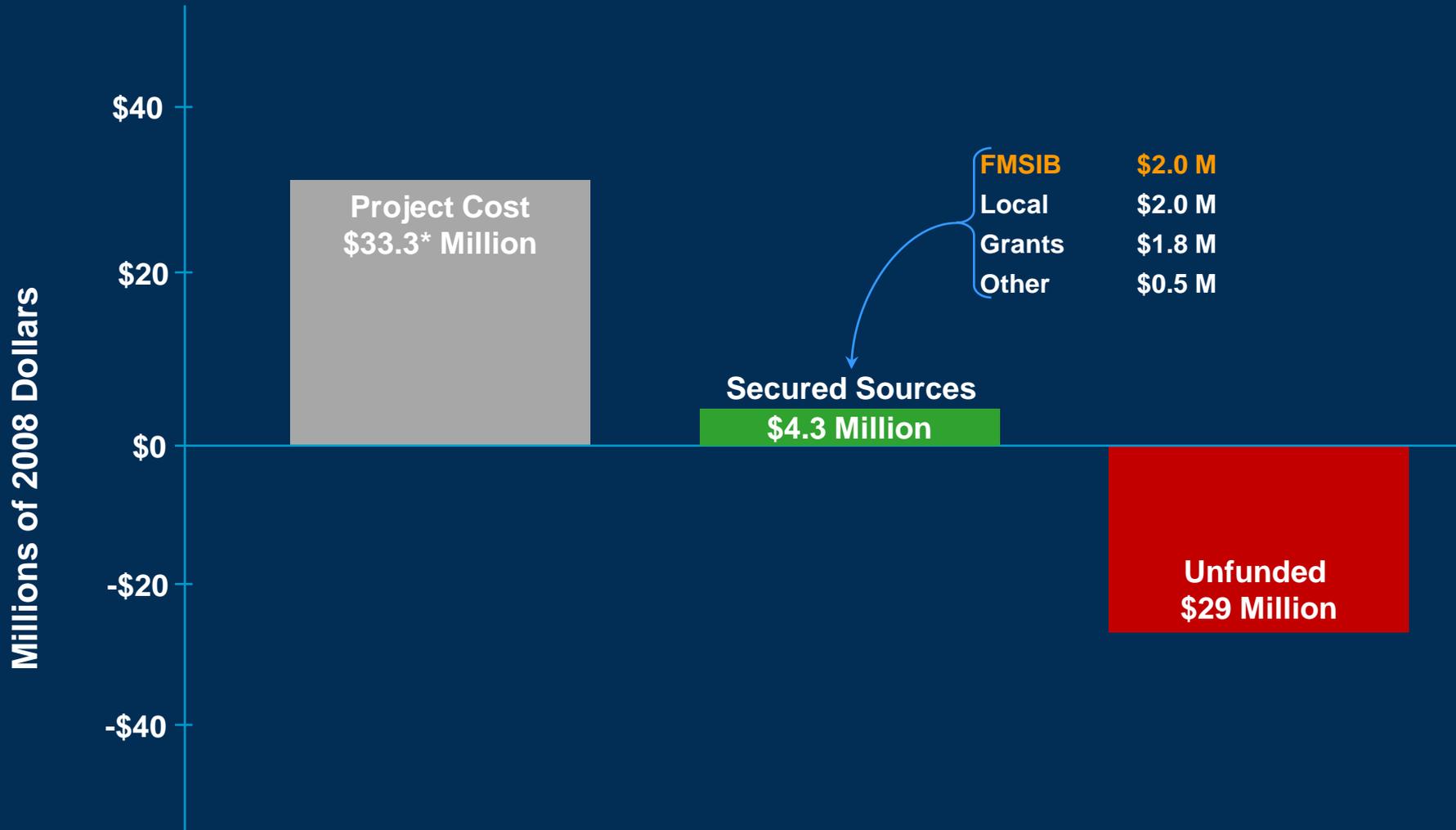
- Phases 2 and 3 unfunded.
- Phase 2: widening 70th Ave. E from the northern edge of the UPRR tracks to the northern leg of the 20th Street E./70th Avenue E. intersection.
- Phase 3: grade-separated crossing at the UPRR tracks for 70th Avenue E.
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget

# 70<sup>th</sup> Ave. E & Valley Ave. Widening

## Freight Benefits

- **Eliminate Vehicle/Train conflicts and delays.**
- **Improve freight mobility between existing industrial property and businesses in the Cities of Fife, Sumner, Puyallup, and Pierce County and Port of Tacoma facilities at Commencement Bay and Fredrickson.**
- **Provide the key link to complete the North-South Interregional Access, the regional I-5 Freight Bypass, the Cross-Cascades Access, the Green River Valley Access and the Cross Valley Access.**

# 70<sup>th</sup> Ave. E & Valley Ave. Widening Project Financials (Millions of 2008 Dollars)



Source: City of Fife, October 2008

\*Phases 2 & 3 ballpark estimate

# Lincoln Ave. Grade Separation Project Description



- The Lincoln Avenue Grade Separation will raise Lincoln Avenue over key railroad tracks used for intermodal rail operations within the Port area
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget

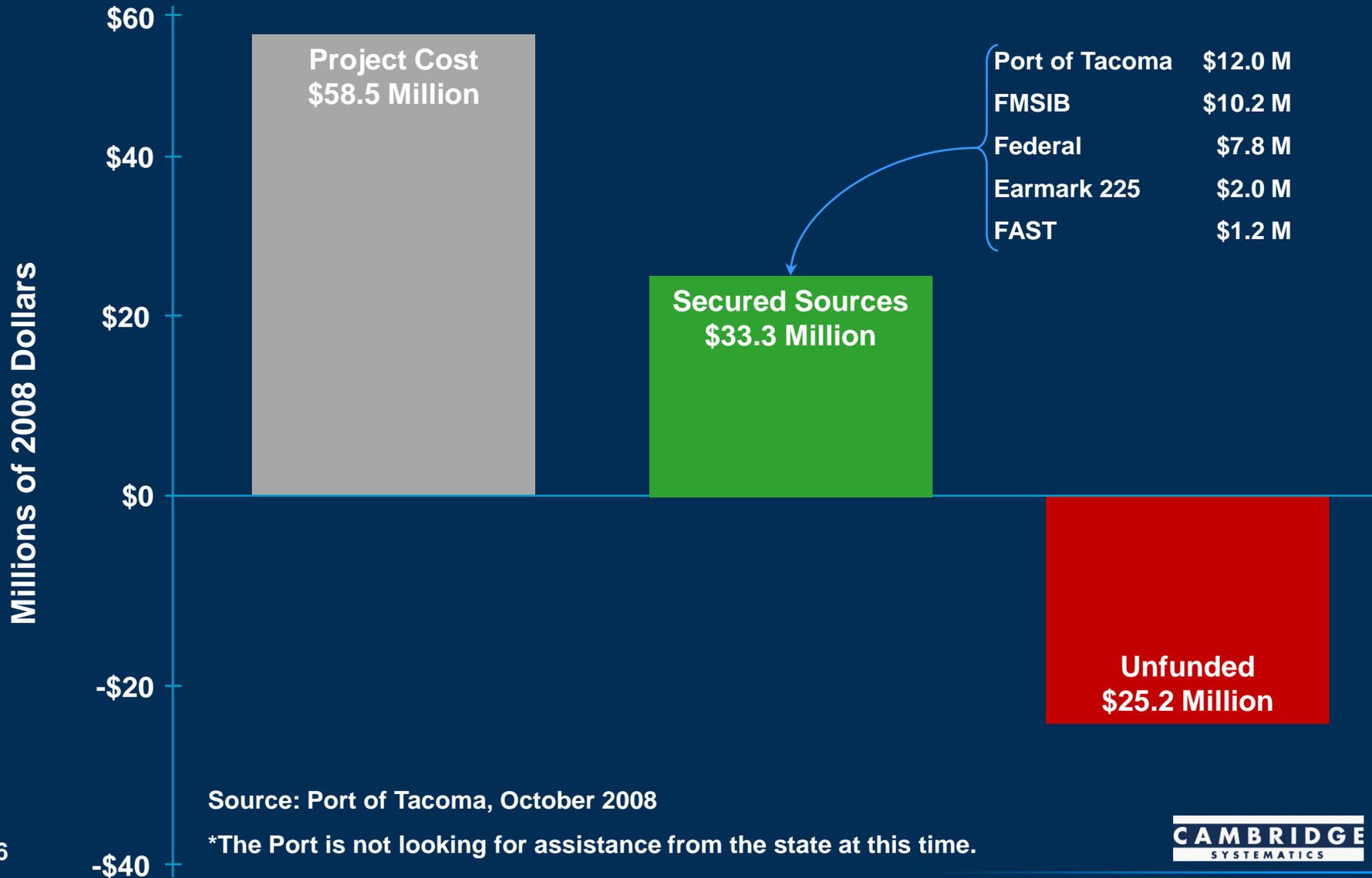
# Lincoln Ave. Grade Separation

## Freight Benefits

- **Improve both road and rail efficiency throughout the Tacoma Tide flats**
- **Improve safety for passenger vehicles, trucks and pedestrians**
- **Eliminate road blockages that can last up to 30 minutes, improving truck access to the terminals and other businesses**
- **Provide enhanced operational flexibility for rail and truck operations**
- **Allow additional rail access to port terminals that have on-dock intermodal yards.**

# Lincoln Ave. Grade Separation\*

## Project Financials (Millions of 2008 Dollars)



Source: Port of Tacoma, October 2008

\*The Port is not looking for assistance from the state at this time.

# Lander St. Overpass Project Description



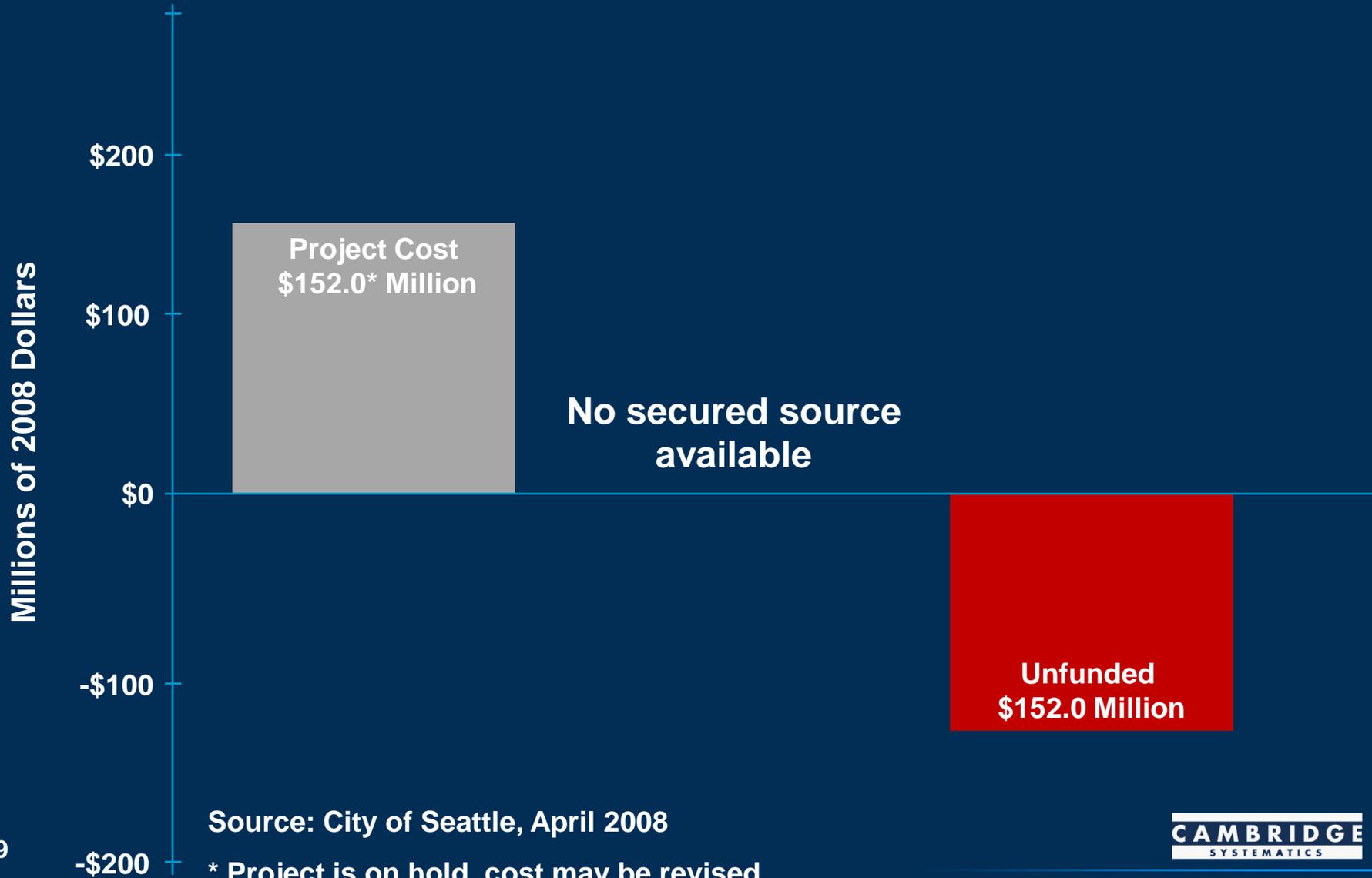
- The South Lander Street Overpass project would relieve a serious east/west chokepoint in the Duwamish Manufacturing and Industrial Center
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget
  - RTID

# Lander St. Overpass

## Freight Benefits

- **Improve safety on an arterial road that currently crosses BNSF mainline railroad tracks.**
- **Reduce truck and traffic delays caused by train crossings.**
- **Enhance access to the one of the largest port operators in the country.**
- **Improve truck access to SODO and Duwamish industrial area destinations.**
- **Help keep traffic moving during Alaskan Way Viaduct replacement**

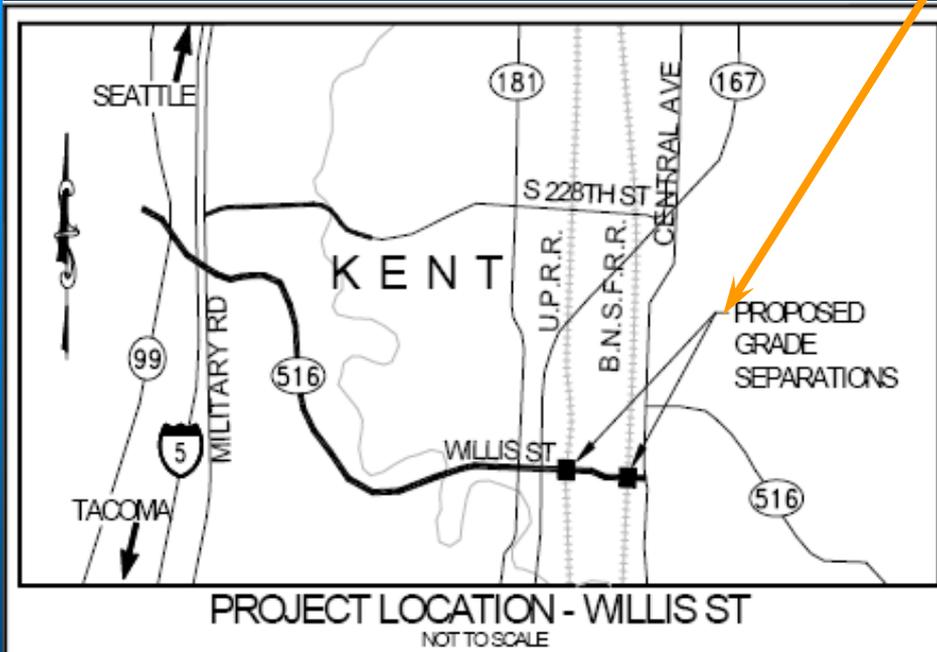
# Lander St. Overpass Project Financials (Millions of 2008 Dollars)



Source: City of Seattle, April 2008

\* Project is on hold, cost may be revised.

# Willis St. Grade Separation Project Description



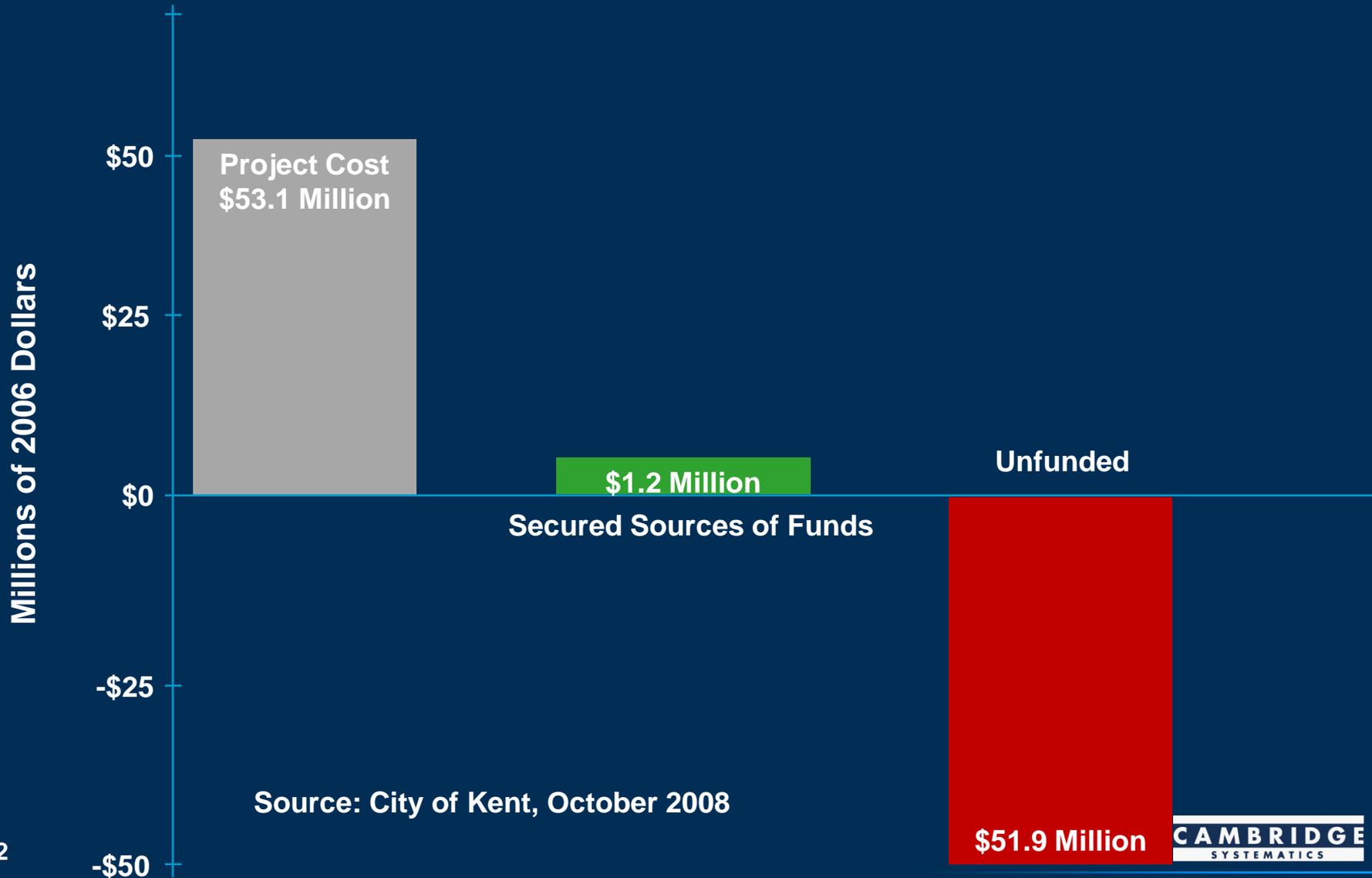
- Separate both the BNSF and UP railroad tracks on Willis Street (SR 516) between SR 167 and Central Avenue
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget

# Willis St. Grade Separation

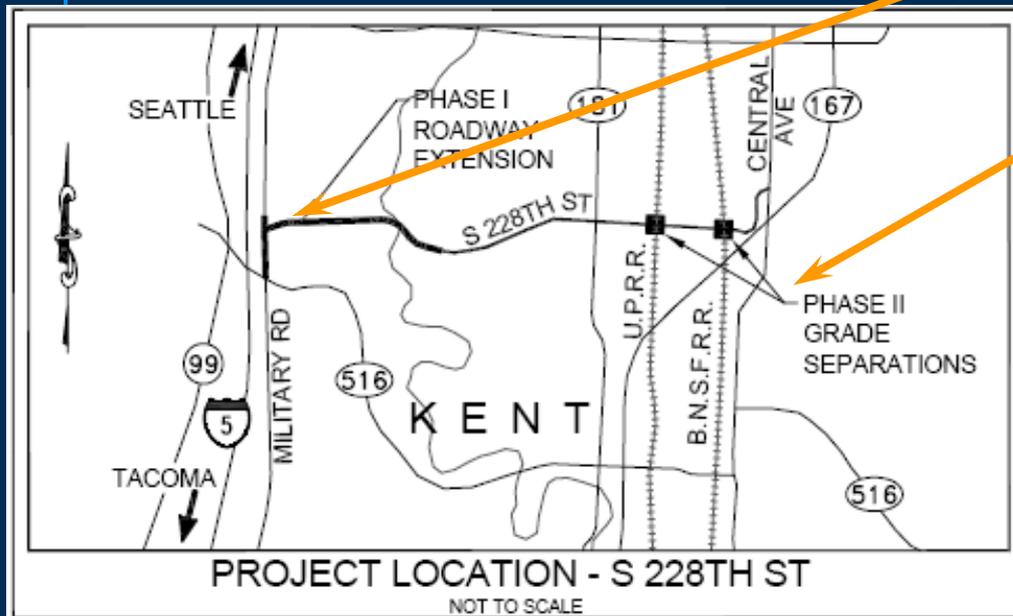
## Freight Benefits

- Provide a critical, grade-separated link through the commercial/industrial/central area of Kent
- Eliminate rail/auto accidents
- Link the valley warehouse/industrial center to SR 167 and I-5
- Reduce freight and auto delays
- Eliminate at-grade conflicts
- Allow for increased rail speeds

# Willis St. Grade Separation Project Financials (Millions of 2008 Dollars)



# S 228<sup>th</sup> St. Grade Separation Project Description



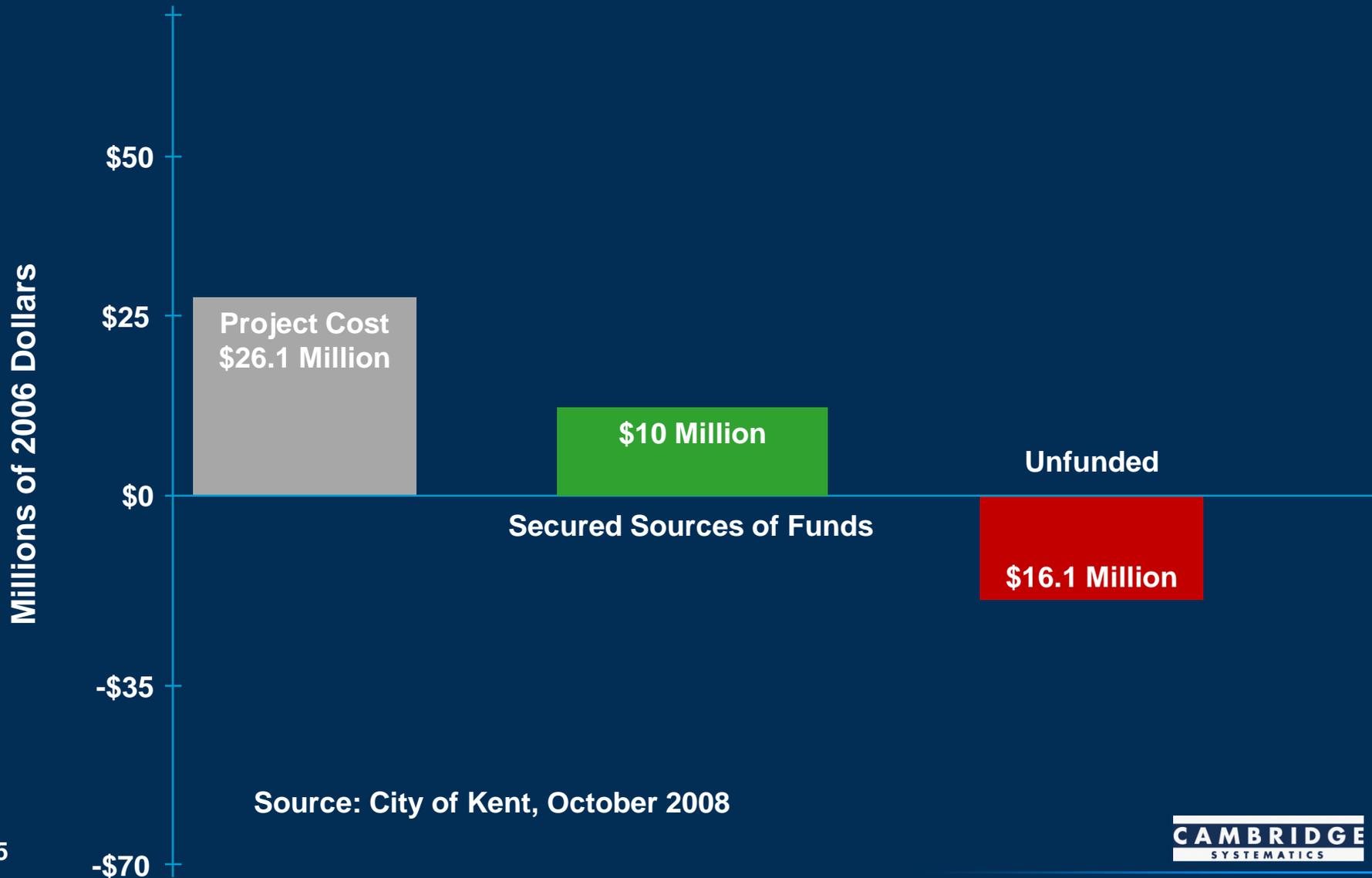
- Phase 1: extend S 228<sup>th</sup> St. to Military Rd. Complete.
- Phase 2: separate both the BNSF and UP railroad tracks crossing S 228<sup>th</sup> St. BNSF separation is fully funded.
- Listed as priority freight project in:
  - FMSIB List
  - FAST
  - Legislative budget

# S 228<sup>th</sup> St. Grade Separation

## Freight Benefits

- Eliminate rail/auto accidents
- Reduce freight and auto delays
- Eliminate at-grade conflicts
- Allow for increased rail speeds

# S 228<sup>th</sup> St. Grade Separation Project Financials (Millions of 2006 Dollars)



# Strander Boulevard Project Description



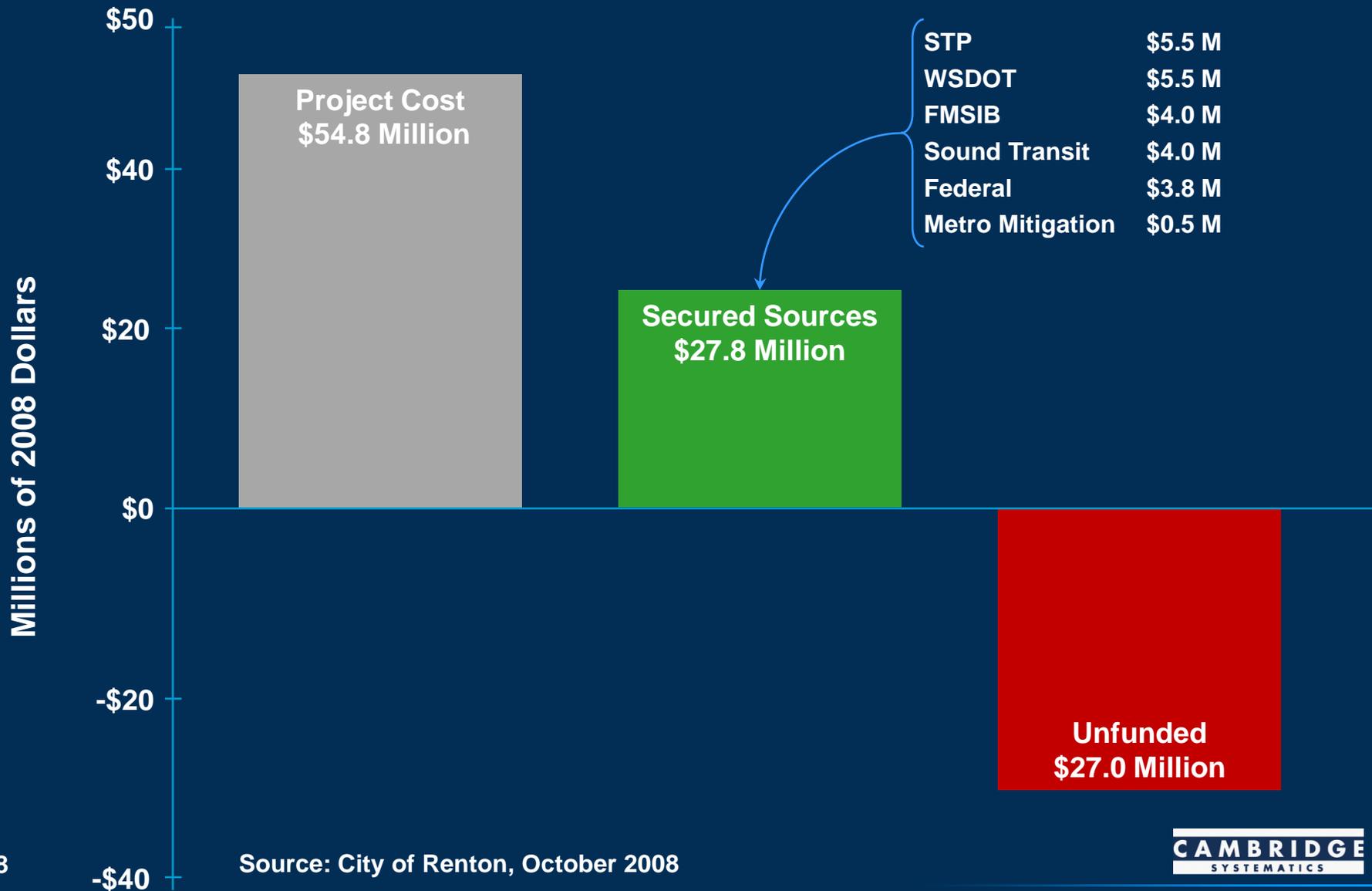
- Extension of Strander Boulevard to the east of West Valley Highway (SR 181)
- Roadway overpass structure to provide grade separated crossings of the UPRR and BNSF railroads
- Listed as priority freight project in:
  - FMSIB
  - Legislative budget

# Strander Boulevard

## Freight Benefits

- **Connect the cities of Renton and Tukwila, and provide significant congestion relief to existing arterials**
- **Provide direct access to the Boeing Longacres site**
- **Eliminate at-grade conflicts**
- **Reduce freight and auto delays**

# Strander Boulevard Project Financials (Millions of 2008 Dollars)



# Everett Overcrossing Project Description

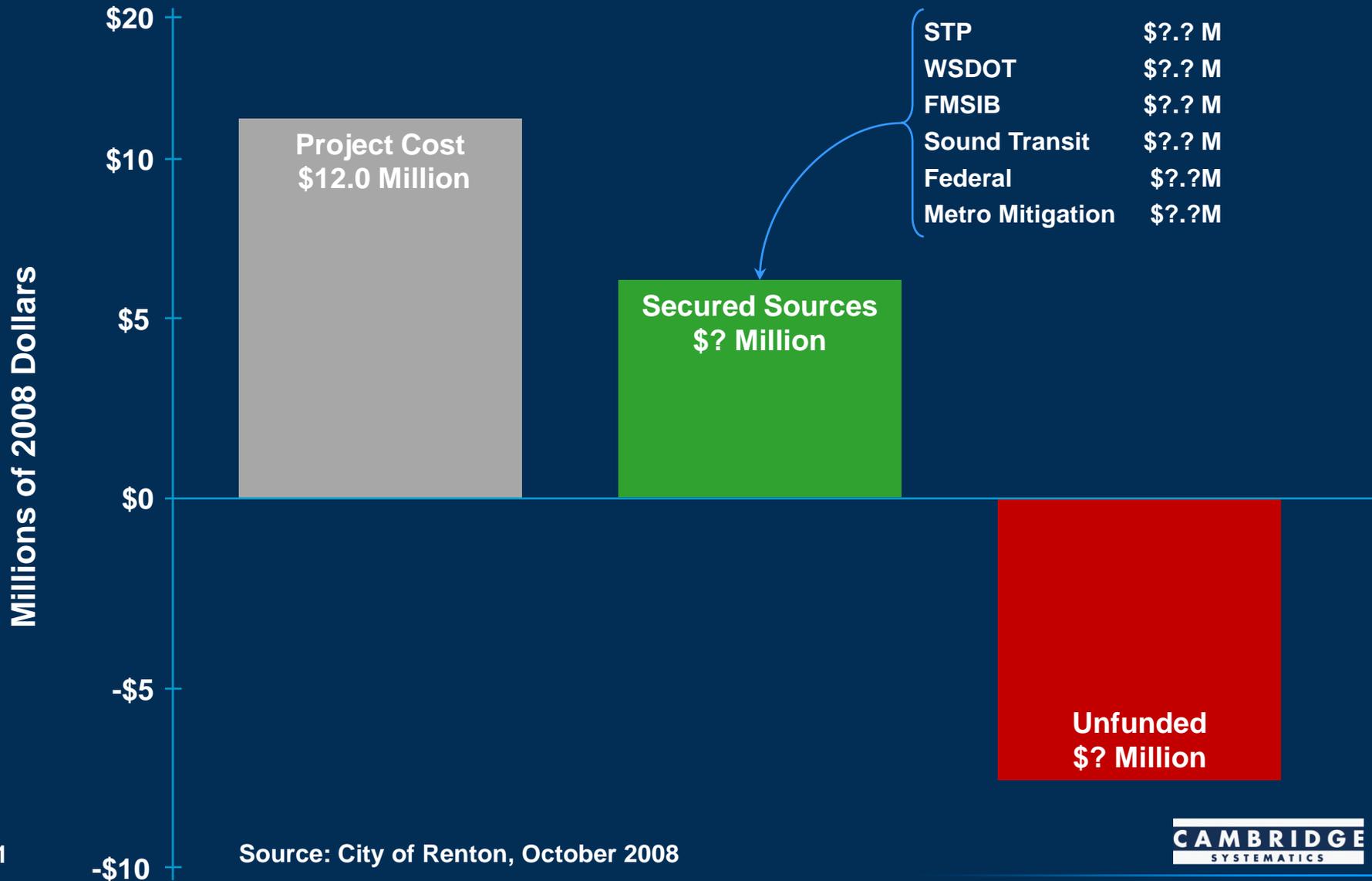


- Construction of two overcrossings over BNSF's rail line:
  - Extension of 41st St. from east of I-5 over the BNSF rail line and down to the Riverfront redevelopment area. Project completed.
  - Grade separation of Lowell River Road over the BNSF main line west of Rotary Park. This phase has a funding gap. Amount to be provided by the city of Everett.
- Listed as priority freight project in:
  - Legislative budget
  - FMSIB

# Everett Overcrossing Freight Benefits

- **Increase safety**
- **Reduce congestion**
- **Improve freight mobility. This route is the primary east-west rail corridor for intermodal trains serving 36 trains per day**

# Everett Overcrossing Project Financials (Millions of 2008 Dollars)



# SR 202 Corridor Widening Project Description

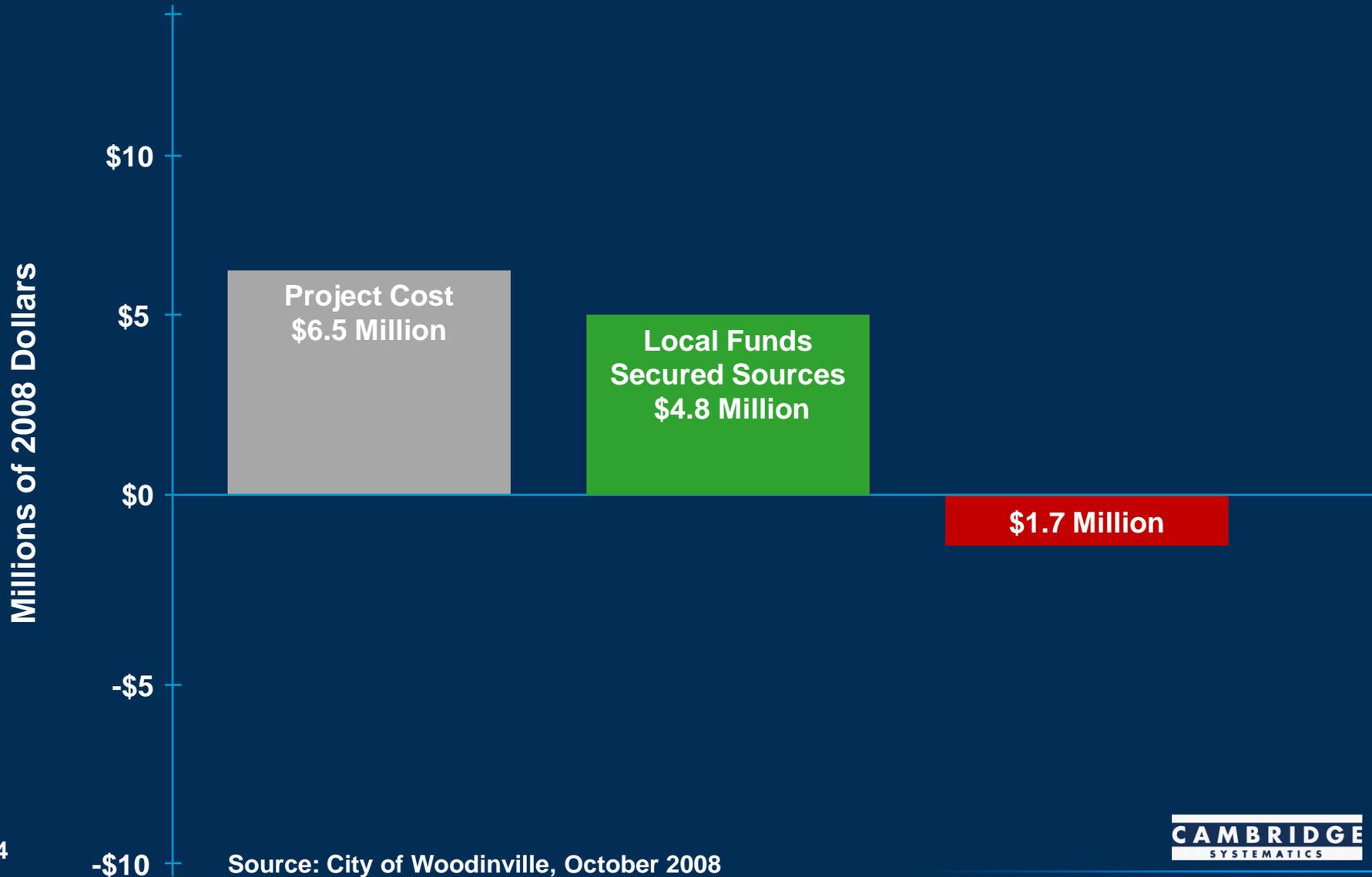


- Widening of the roadway and the existing bridge for efficient truck movement
- Listed as priority freight project in:
  - Blueprint
  - Legislative budget

# SR 202 Corridor Freight Benefits

- Reduce freight and auto delays
- Improve safety
- Reduce vehicle emissions

# SR 202 Corridor Project Financials (Millions of 2008 Dollars)



# SR 18 Widening Project Description

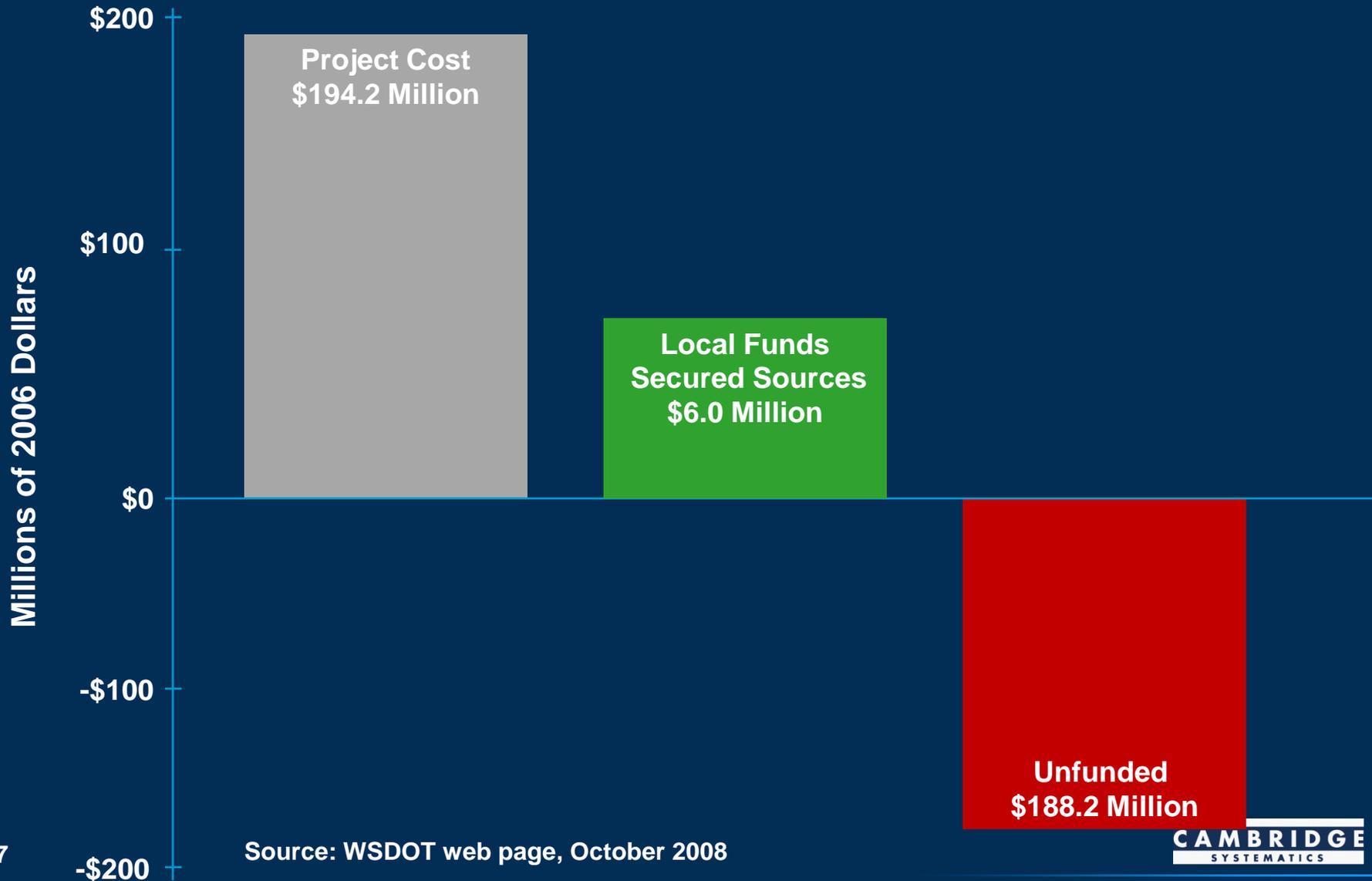


- Widening of the SR 18 from Issaquah-Hobart Rd to I-90 to four lanes.
- Improvements to existing truck climbing lanes
- Listed as priority freight project in:
  - WSDOT

# SR 18 Widening Freight Benefits

- **Improve Safety**
- **Reduce passenger and freight travel times**
- **Mitigate pollution by building drainage facilities to capture and clean highway runoff**

# SR 18 Widening Project Financials (Millions of 2006 Dollars)



Source: WSDOT web page, October 2008

# Other FAST Projects

## Limited information

- **I-5 Port of Tacoma Road Overcrossing**
  - Not fully funded
  - FMSIB and Legislative lists
- **S 212<sup>th</sup> St. Grade Separation**
  - Not fully funded
  - FMSIB and Legislative lists
- **8<sup>th</sup> St.-UP Grade Separation**
  - Project on hold
  - FMSIB, FAST, and Legislative lists